Health and Welfare Canada
Santé et Bien-être social Canada

dietetic department guidelines in smaller health care facilities

Canada

REPORT OF THE
WORKING GROUP ON
THE DEPARTMENT OF DIETETICS

GUIDELINES FOR THE
OPERATION OF THE
DEPARTMENT OF DIETETICS
IN SMALLER HEALTH CARE FACILITIES

HEALTH SERVICES AND PROMOTION BRANCH
HEALTH SERVICES DIRECTORATE

Published by authority of the
Minister of National Health and Welfare

Également disponible en français sous le titre
"Guide du service de diététique dans des
petits établissements de santé"

Reprinted 1982
Reprinted 1986

90-01765/

© Minister of Supply and Services Canada 1981

Cat. No. H39-14/1981E

ISBN 0-662-11409-4

The Working Group established to set up
"Guidelines for the Operation of the Department of Dietetics
in Smaller Health Care Facilities"

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INTRODUCTION

Following the publication of the "Guidelines for the Operation of the Department of Dietetics", originally developed for the use of health care facilities of fifty beds and over, many requests were received by the Federal and Provincial Consultants in Dietetics to adapt these guidelines, or develop new ones for the use of smaller health care facilities (fifty beds or less).

The matter was referred to the Working Group that had been set up to review and up-date the original guidelines. As a result of their efforts, this manual was developed to provide the direction needed for the effective management of food services in smaller health care facilities.

Not all of the guidelines will be suitable for use in all facilities. However, the ideas presented should help to promote the examination of existing routines with the hope that constructive changes and improvements will be put into effect.

DEPARTMENTAL MANUAL

Every dietetic service needs an operational guide or manual containing written information which helps to:

- establish one person as the Director of Dietetics who delineates responsibility and relationships within the department;
- define a clear picture of the operation;
- provide a ready reference to reduce the time spent dealing with future problems and questions;
- serve as a means of communication within the department and with other departments.

The manual would include sections such as:

1) Purpose of the Department

i.e. The provision of high quality food and nutrition services by the department is an essential and important part of the function of the total health care facility.

2) Aims of the Department

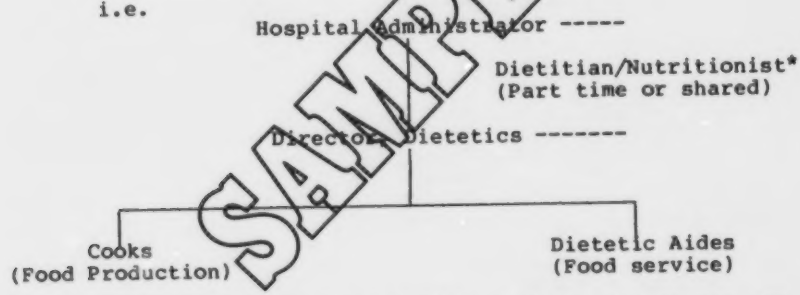
i.e. The aims of the department are to maintain or improve the health of patients and personnel by:

- managing the department based on acceptable standards, policies, and within available funds;
- the production and service of safe, nutritious and appetizing food;
- the use of a diet manual approved by medical staff;
- the use of discharge diets in accordance with the diet manual.

3) Organization Chart

This chart is used to show lines of authority and relationships within the department.

i.e.



SAMPLE

* The Dietitian/Nutritionist position may or may not exist.

4) Job Description

A job description is a written summary which details:

- name of job
- summary of duties and responsibilities
- qualifications required of applicant
- working environment
- opportunities for advancement

In the Department of Dietetics several jobs may fit into one category for which one job description will apply. Other jobs will be singular and different from all others and each will require a separate job description.

See Sample Job Description, page 6.

For job names or titles, refer to "Canadian Hospital Terminology and Definitions", published by Canadian Hospital Association, 1972.

5) Policies

Policies are written for the routine management of the department. Policies are required so that the operation can meet the purpose and aims of the department.

In the dietetic service, some policies will apply only to the department, while some will involve:

dietetics and nursing
dietetics and housekeeping
dietetics and physical plant

All policies need to be approved by the Administrator.

Policies should be written as briefly and clearly as possible. Policies will vary in different facilities; therefore only headings are listed below to serve as examples:

Budget & Financial

operating budget
monthly financial and meal-day data
cost records
daily meal census
meal recoveries

Purchasing:

food specifications
ordering of supplies
receiving
storage of food supplies
storage of other supplies
inventory

Food Preparation:

meal pattern
menu
recipes
portion control
nourishments

Nutrition Services:

diet manual - regular diets
diet manual - special diets
diet orders
tray set-up
isolation trays
meals-on-wheels
staff meals
catering

Personnel:

employment practices (pertains to all departments)
personnel policies (those which apply to the Department of Dietetics only)
staffing establishment
job descriptions
work schedules
time schedules
personal hygiene
education - orientation
- in-service

Sanitation-Safety-Security

sanitation controls - cleaning schedules
- equipment cleaning
- warewashing
- garbage control
- pest control

safety regulations, including fire safety
security

Relationships with Other Departments:

administration
employee health
housekeeping
stores
nursing

See Sample Policy, page 8.

6) Procedures

Procedures are the detailed directions which tell how each policy is carried out.

See Sample Procedure, page 8.

General Comments

- There may be other subjects which the Director will want to add to the departmental manual.
- It is necessary and important to keep the departmental manual up-to-date.

SAMPLE JOB DESCRIPTION

JOB TITLE: Dietetic Aide GRADE:

JOB CODE: DATE:

LOCATION:

1) Job Summary

May be involved with aspects of patient tray set-up and assembly, serving of food, delivery and pick-up of tray carts to wards, tray stripping, dishwashing, preparation and delivery of between-meal nourishments to patients. May clean equipment and surfaces. May also do vegetable preparations and prepare sandwiches and salads. Performs related duties as required.

2) Performance Requirements

a) Responsibilities: Preparation and handling of some food items in accordance with sanitary regulations; safe handling of dishware and equipment to avoid contamination and in a careful manner.

b) Job Knowledge: The ability to take directions and learn procedures.

c) Tools of Operations: Dishwashing machine, blender, vegetable peeler, meat slicer and other related equipment.

3) Supervision

Under general direction of and responsible to Director of Dietetics or delegate.

4) Work Performed

- sets up patient trays
- serves menu items
- delivers and picks up tray carts
- strips trays
- processes dishware
- prepares and delivers between-meal nourishments
- cleans surfaces and equipment
- prepares vegetables
- prepares sandwiches and salads

SAMPLE

5) Job Relationships

Formal line of promotion may be from Aide I to Aide II depending on job responsibilities.

6) Qualifications

a) Training: no formal training required but must have ability to read, write and follow oral and written instructions and ability to perform routine tasks.

b) Physical demands: stands and walks short distances most of working day; lifting may be involved; uses and handles some kitchen equipment and utensils.

SAMPLE POLICY AND PROCEDURE

Sample Policy

Patient Visiting.

All patients will be visited at least once per week by a member of the Department of Dietetics.

Patients on special diets, or those receiving "as desired" diets, will be visited as frequently as necessary. Consultation with the dietitian/nutritionist will be arranged as required.

SAMPLE

Sample Procedure

Patient Visiting

Using the card file/tray list, the dietetic supervisor visits patients at meal time (usually noon meal) as trays are being received to observe acceptability of food and service and to record any necessary information.

In the Department of Dietetics, the above information is transposed to tray cards and otherwise acted on to make sure that the patient receives proper selection or choices.

STAFF MANAGEMENT

The assignment and utilization of staff should be matched to the volume and type of work to be done. There are many factors which affect staffing, and it is the responsibility of each Director of Dietetics to skillfully calculate and determine the staff coverage required. At the various times throughout the normal twelve-hour operational period, one should take into account the type of methods possible and the peak period demands associated with meal services.

The charge person in the department has to be totally familiar with the jobs in order to define the duties and to determine the span of hours of work for each job. The daily roster of staff might include some full-time and some part-time personnel. Part-time personnel may be engaged for a full day's employment or even, say, for 3-4 hours per day. Matching the use of full-time and part-time personnel with the work to be done will result in the best possible and most economical use of manpower. The ability to modify staff numbers when the patient census is either up or down is essential.

Work Schedule

A work schedule details in writing the duties assigned daily to the individual workers and the approximate time allocated for the specific tasks. In this way there is more assurance that all the work will be accomplished and that the workload will be assigned evenly. Work schedules must be integrated so that performance of tasks will be co-ordinated.

Some work schedules will include a time assignment during the day for special cleaning which allows time for the thorough cleaning of the facility and equipment. This is in addition to the daily routine care. The special cleaning schedule programs specific cleaning to be done on specific days.

See Sample Work Schedule and its associated Cleaning Schedule, pages 12 & 13.

Since the work schedule indicates the hours of work related to the various jobs and also details the procedures to be accomplished during those hours, the work schedule dictates to a great degree whether staff will be effectively utilized.

Time Schedule

The time schedule which details hours of work and days off can only be determined after establishing:

- coverage required Monday - Friday
- coverage required on weekends
- coverage required on statutory holidays
- whether person in charge will rotate in the weekend off pattern, or be off each Saturday and Sunday
- the Sundays-off rotation for staff
- the availability and use of part-time staff

See Sample Time Schedule, page 14.

To Measure Work Performed

Effective scheduling and good utilization of staff can lead to increased work productivity.

The Director can use measures of productivity as a guide to assess the operation on an on-going basis and even to compare with other similar facilities.

The following are suggested as ways or indicators to measure work effort:

On yearly basis:

$$\frac{\text{Total Meal-Days}}{\text{Equivalent Full-Time Staff}} = \text{Meal-Days/Equivalent Full-Time Staff}$$

On monthly basis:

$$\frac{\text{Total Meal-Days}}{\text{Total Paid Hours}} = \text{Meal-Days/Paid Hour}$$

$$\frac{\text{Man Minutes}}{\text{Meal-Days}} = \text{Man Minutes/Meal-Day}$$

$$\frac{\text{Total Paid Hours}}{\text{Total Meal-Days}} = \text{Paid Hours/Meal-Day}$$

Should it be found that significant differences occur from one measurement period to another, the Director should:

- recheck the mathematics;
- justify the differences, or investigate the cause or practices which led to the situation.

Staff Attendance

The attendance of each employee must be maintained daily and records should also be maintained to indicate time worked, days off for the week, days for vacation, statutory holidays, absenteeism and lateness.

Staff should understand the policies which deal with illness and absenteeism. There should be accountability for all unauthorized time away from work. Work productivity can suffer if employee attendance is not closely monitored and controlled.

Communications

Good management depends on making sure that certain things are being done or carried out in the department. Therefore, the Director has a major role to play in determining the flow of communications within the department and with services which interrelate with dietetics such as nursing, administration and others.

It is important that the Director of Dietetics attend department head meetings along with representatives from other departments in the facility. The Director of Dietetics will also do much to develop good communications with his own staff by meeting with them regularly to discuss problems, relay information and determine decisions.

SAMPLE WORK SCHEDULE

Dietetic Aide - Tray Girl - Hours 0700 - 1530

0700 - On duty - preheat dishes.
Check tray list and make diet changes.
Portion and place cold items on breakfast trays.
Prepare for serving trays.

0730 - Place hot menu items on trays.

0800 - Serve Staff.

0815 - Clean up serving area - put away supplies.

0830 - Take clean dishes, trays, cutlery, etc. from dishwashing machine, place on cart for re-use.
Wash tray carts.

0915 - Go to coffee.

0930 - Prepare delayed meal trays and take to ward.
Reset trays and place on tray carts.

1000 - Take patient census file to nurses' station to check tray list.

1015 - Do daily tray census.

1030 - Dish up desserts for patient trays and place in refrigerator. Prepare milks, juices, butter, breads, etc. for patient trays and place in refrigerator.

1130 - Place above items on trays.
Make tea and other hot beverages.

1145 - Pour beverages into individual beverage pots and place on trays.

1200 - Go to lunch.

1230 - Take clean dishes, trays, cutlery, etc. from dishwashing machine - place on cart for re-use.
Wash tray carts.
Reset trays and place on tray carts.

1330 - Prepare delayed meal trays and take to ward.
Prepare patients' afternoon nourishments.

1400 - Go to coffee.

1415 - Distribute nourishments to patients, and collect soiled ware.

1445 - Special cleaning - see sample.

1530 - Off duty.

SAMPLE

SAMPLE SPECIAL CLEANING SCHEDULE

Dietetic Aide - Tray Girl - Hours 0700 - 1530

Day of Work	1445 - 1530 hours (45 minutes daily)
Monday	Thoroughly clean tray cart No. 1 - inside, outside, top, wheels. Clean nourishment cart.
Tuesday	Thoroughly clean tray cart No. 2 - as above. Clean coffee urn.
Wednesday	Destain dishes, trays, beverage pots and cutlery.
Thursday	Thoroughly clean serving area, including hot food table, drawers, shelving, counters.
Friday	Thoroughly clean day stores including shelving, containers, door, spot check walls.
Saturday	Thoroughly clean dish cupboard including counter, drawers, shelves, etc.
Sunday	Defrost and clean reach-in refrigerator including inside, outside and top.

SAMPLE

SAMPLE TIME SCHEDULE

1st week	Shift	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
Aide 1	0700 1530						D	D
" 2	1030 1900				D	D		
" 3	R	D	D	1030 1900	1030 1900	1030 1900	0700 1530	0700 1530
" PT	1600 1900		-	-	-			
" PT	1600 1900	-		-				
2nd week								
Aide 2	0700 1530							D
" 3	1030 1900							
" 1	R	D	D	Stat D	1030 1900	1030 1900	0700 1530	0700 1530
" PT	1600 1900			-				
" PT	1600 1900		-		-			
3rd week								
Aide 3	0700 1530						D	D
" 1	1030 1900				D	D		
" 2	R	D	D	Stat D	1030 1900	1030 1900	0700 1530	0700 1530
" PT	1600 1900		-	-				
" PT	1600 1900	-		-				

D - means day off
R - means relief
P.T. - means part-time
Stat. - means statutory holiday

1st week - 1030 - 1900 - shift is extra between 1030 hours and 1600 hours

Staff rotate shifts.

Staff rotate weekends off.

- Full-time staff - work 2 weekends.
  off 3rd weekend.

- Part-time staff - off every 2nd weekend.

SAMPLE

EDUCATION AND TRAINING

Employee turnover is costly. Everything that can be done to maintain useful, effective and satisfied employees will reduce labour costs. After hiring a suitable employee, it is the responsibility of the Director to see that the new employee receives a satisfactory orientation to his job. The employee should be given a brief history of the facility and a guided tour. This should be done in a way that will inspire pride in his job and help him to see how his job and his department fit into the facility as a whole. He should be informed of basic information such as dress regulations, hours of work, days off and other fringe benefits. He should be made aware of the job description and work schedule. These are posted.

It is the responsibility of the Director of Dietetics to see that all new employees are taught the basic principles of safe food handling, sanitation and efficient work methods. Other specialized information may be required. Be sure the new employee has been given instruction and receives adequate supervision.

At regular intervals, it is wise to have educational programs, which might include a speaker or films, for all food service employees. Other department heads in the facility or resources in the community might be used for educational purposes. Employees whose knowledge is growing feel more confident and satisfied with their jobs.

The Director of Dietetics should use every opportunity to learn more about the job of managing a department and the areas of nutrition and food service. The Director should be alert to and attend appropriate educational programs. Opportunities for continuing education should be shared by the Director and all levels of staff and employees. Check with the administrator of the facility who has responsibility for in-service education. The facility library and/or provincial hospital association may have helpful educational resources available. In the absence of local educational programs, reading and discussion of appropriate books and journal articles are resourceful, effective ways to encourage continuing education among staff members.

Courses for food service supervisors are available, both at some community colleges and by correspondence. Inquire about these from the provincial hospital association, government health care plan, or the provincial dietetic association.

FINANCIAL AND STATISTICAL DATA

The importance of maintaining good financial and statistical data in smaller facilities is of great importance if the monies allocated to the Department of Dietetics are to be controlled effectively.

The compiling of data is usually performed by the business office. Good communications between the Director of Dietetics and this office are essential to obtain valid and accurate statistics. The frequency of reporting the various calculations (explained below) will be determined by the administration of the facility. In some provinces other financial statistics are also required.

Meal-Days

A meal-day consists of breakfast, lunch, dinner and coffee-break(s) or nourishment(s), and is used as a measure of the workload.

Meal-Day Pattern:

Breakfast	Lunch	Dinner
Juice	Soup	Juice
Egg (or substitute)	Sandwich or Casserole	Meat (main entree)
Toast, margarine	Side Salad	Potato
Beverage	Dessert	Vegetable
	Beverage	Dessert
		Beverage

Plus the usual coffee break(s) or nourishment(s)

Non-patient Meal-Day Value

Each of the above meals and breaks (or nourishments) should be priced using the current cafeteria prices even if the meal is not served.

The meal-day value will vary every time there is a change in the cafeteria prices, which should be reviewed on a frequent regular basis to ensure that they reflect the current market trend.

The meal-day value is used as the divisor to obtain the non-patient meal-days. It is divided into cafeteria recoveries. In some provinces, the divisor value for the meal-day value may be pre-determined by the provincial authority.

Meal-Day Calculations

1) In-patient meal-days are used for in-patients (adults and children, excluding newborns). The number to report corresponds to the number of patient-days during the calendar year.

2) Out-patient meal-days are usually divided into two categories:

   (a) Out-patient meals as part of an insured service are meals served to out-patients who participate in approved programs such as day surgery, etc.

   The method used to calculate is:

   $$\frac{\text{Number of out-patient meals}}{3} = \text{number of insured out-patient meal-days.}$$

   (b) Out-patient meals not covered by an insured service are meals which have been authorized for an individual. To price these, use the current cafeteria selling price. The value then becomes part of the total value of food for which no revenue is received (non-cash revenue) as in 3(b) below.

3) Non-patient meal-days include meals served to staff, visitors, volunteers, etc. To calculate non-patient meal-days both cash recoveries and non-cash revenues are utilized:

   (a) Cash recoveries include revenues from cafeteria sales, meal tickets, board rates, meals-on-wheels, vending machines, etc.

   (b) Non-cash revenues are determined by applying current cafeteria prices to the food delivered. This could include catering activities, feeding out-patients not covered by an insured service, volunteers, etc.

   The method to calculate non-patient meal-days is:

   $$\frac{\text{cash recoveries \& non-cash revenues}}{\text{meal-day value}} = \text{number of non-patient meal-days}$$

Cafeteria Selling Price

The cafeteria charges should be revised and upgraded at regular intervals to reflect the current costs. The selling price should cover the cost of food and at least a percentage of the labour. Ideally all labour costs should be recovered.

It is essential that current selling prices be used to calculate the value of the non-patient meal-day.

As the menu items are varied, so are the selling prices for them. The following example of weighting illustrates how to determine the value to use in the pricing of the meal pattern:

i.e. Selling prices of the different main entrees might be $0.80 for meat loaf, $0.95 for chicken leg and $1.00 for roast beef.

The number of portions sold should be known:

10 portions of meat loaf at 0.80 were sold
20 portions of chicken legs at 0.95 were sold
15 portions of roast beef at 1.00 were sold

To determine the average selling price to be used in the sample menu pattern, the following method is advocated:

10 portions x 0.80	=	$8.00
20 portions x 0.95	=	19.00
15 portions x 1.00	=	15.00
45 portions	$42.00	Total

$$\text{Average selling price } \frac{\$42.00}{45 \text{ portions}} = \$0.93$$

Therefore, a charge of $0.93 to $1.00 may be determined for the main entree. It may be that a union contract will require that a complete meal be offered, and it should be equivalent in value to the stated price if budget allocations are not to be exceeded.

Catering

The serving of food to special functions should be done only when formally approved by the administration. A policy should be established to control catering, stating clearly who is allowed to request the service.

The catering activities may be classified as cash recovery or non-cash revenue, depending on whether or not money is received.

In both instances the following formula will apply:

1) calculate the cost of raw food
   calculate the cost of other supplies
   calculate the cost of salaries for service

2) $\frac{\text{Total of (1) above}}{\text{non-patient meal-day value}}$ = number of non-patient meal-days

   This total is also used to complete the monthly total of non-patient meal-days.

Monthly Operating Statement

At month end the department should be supplied with financial and statistical information from Administration. All variances from the budget should be closely examined. The sample reporting form shown on page 20 indicates the type of information that can be developed to review the operation in greater detail.

REPORTING GUIDE FOR MONTHLY FINANCIAL STATEMENT

	Current Month	Actual to date	Budget to date	Variance
1. **Total meal-days**				
In-Patient ----------				
Out-Patient ----------				
Non-Patient ----------				
2. **Total Expenditures**				
a) Food Cost ----------				
Infant Formula --------				
b) **Salaries**				
Supervisory ----------				
Non-Supervisory -------				
Total Paid Hours ------				
Overtime ----------				
Vacation ----------				
Sick time ----------				
Statutory Holidays ----------				
c) Other Supplies & Expenses				
Paper/Disposables -----				
Cleaning Supplies -----				
Small Equipment -------				
Office Supplies -------				
d) **Contract fees**				
Food Service Fee ------				
Leased system ---------				
3. **Values Per Meal-Day**				
Raw Food Cost per Meal-Day ----------				
Salaries and Wages Per Meal-Day ----------				
Other Supplies and Expenses Per Meal-Day ----------				
Paid Hours per Meal-Day ---				
Contracted Foodservice Cost Per Meal-Day -----				
4. **Recoveries**				
Cafeteria ----------				
Coffee Shop ----------				
Vending ----------				
Catering ----------				
Meals-On-Wheels ----------				
Other ----------				
5. Expense Items Usually Included in the Budget				
Maintenance & repair ------				
Education ----------				
Travel ----------				
Linen & Uniforms ----------				
Contract cleaning ---------				
Other ----------				

FOOD SERVICE MANAGEMENT

Food service staff should understand the extent to which the department will provide services. The department will operate more smoothly if good communication exists between the management and staff. To further this development, the Director will provide written guidelines or policies which govern these operations or services. In addition, staff have to be well aware of the policies which have been established, their purpose and how the policies are to be carried out in order that day-to-day activities dealing with food service and other services are consistent and effective.

A good organization will have determined procedures for the smooth operation of the following:

Diet Manual

The facility should use one diet manual which has the approval of the medical staff. In this way, all persons have a clear understanding of which foods are allowed or not allowed on each diet, and there is firm agreement on the names or titles of the diets to be used.

Diet Orders

The doctor orders a diet for each patient according to the diet manual. It can be a standard type of diet, i.e. full, soft, full fluid, etc., or can be a special diet.

In turn, the nursing department is responsible for transmitting this information to the Department of Dietetics so that the patient will receive a meal tray. Diet orders should be in a written form.

To prevent problems in relaying information on

- new admissions (new trays)
- discharges (cancelled trays)
- delayed or test meals
- diet changes

it is most important that there is a clear understanding by both Nursing and Dietetics as to what procedures should be followed in dealing with the above. Unneeded trays reaching the ward mean wasted effort in the make-up and delivery of the trays and wastage of food.

Except in larger facilities the most commonly ordered special diets are:

- controlled calories, such as for weight reduction or diabetes;

- controlled fat for elevated cholesterol or gallbladder conditions.

Patients are dependent on the cooperation of many persons for the care they require. If a special diet is ordered, the Department of Dietetics has the responsibility to ensure that the correct foods are offered according to the approved diet manual.

The Departments of Dietetics and Nursing should establish a policy which defines a deadline for diet changes after which diet changes will be incorporated at the next meal. Thus, the meal tray assembly and service should not be interrupted or delayed except when really necessary.

Tray List or Card File

The list of patients to receive a tray is usually kept on a card file system which can save time by eliminating the needless procedure of rewriting the patient's name, etc. each day he is in the hospital.

Revisions to the card file can take place by:

- Nursing making changes to the cards three times in a 24-hour period using coloured flashes to indicate where changes have occurred. Changes occurring at all other times would be conveyed to the Department of Dietetics on a diet order form. (See Sample Diet Order Form, page 23)

- retaining the card file in the Department of Dietetics and requiring all diet orders, diet changes, delayed or test meals, cancelled trays, etc., to be written by Nursing on the diet order form. Accordingly, the card file would be revised by the Department of Dietetics staff. (See Sample Diet Order Form, page 23)

In the Department of Dietetics, the card file should be used to:

- prepare the daily meal census
- revise tray cards
- set up trays in proper sequence

Sample card in visible file may be 15 cm x 10 cm (6" x 4") or 20 cm x 12.5 cm (8" x 5"). (See Sample Card, page 24)

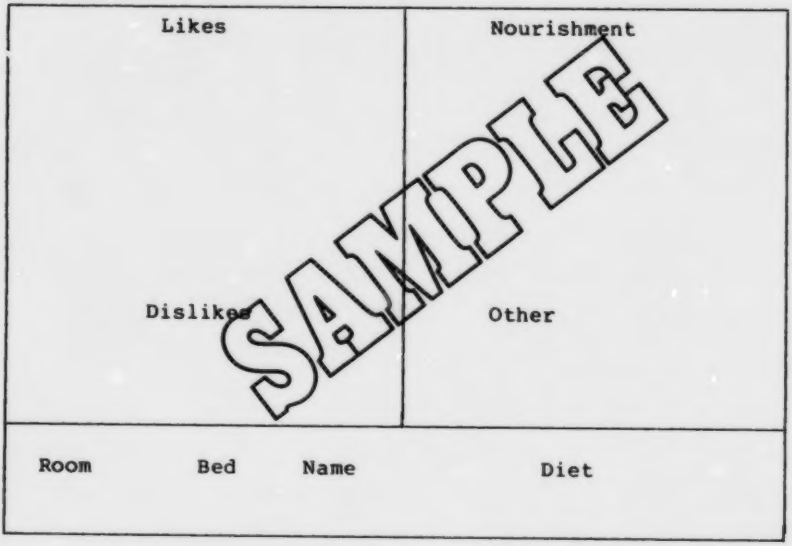
DIET ORDER FORM

Ward....._____ HOSPITAL Date.....

NAME	ROOM	BED	ADM.	DIS.	DIET OR TEST

SAMPLE

Sample File Card.



When all cards are in the visible file and are overlapping, only the information on the lower edge of each card shows.

Daily Meal Census

Each day the dietetic staff should make a count of the patients requiring tray by diet category. This information is needed to determine:

- type and amount of food to be prepared or assembled
- number of trays to be set up

Sample Daily Meal Census

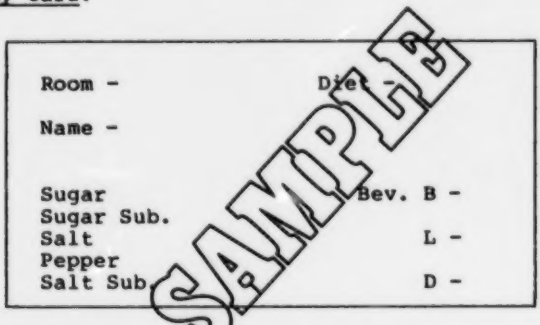
Type of Diet	Ward/Unit				Date:
	A	B			Total
Full or regular					
Full or regular minced					
Soft					
Full Fluid					
Clear Fluid					
Controlled calorie - 1000 - 1200 - 1500					
Controlled fat					
Etc.					
Total					

SAMPLE

Tray Card

Used to identify the tray. 8.75 cm. x 6.25 cm ($3\frac{1}{2}$" x $2\frac{1}{2}$") approximately.

Sample Tray Card:



Tray cards should be changed regularly. In long-term care hospitals, it is desirable to use plastic covers to protect the card.

Cards can be colour coded to indicate the various diets. White cards would be used for the regular or full diets as they comprise the largest number. Another method is to use all white cards and insert coloured tabs on the visible file cards which would match a colour coding system established to delineate the various diets.

Meal Times

Another aspect related to patient meal services and which requires consultation with Nursing, concerns meal times.

Patients do not appreciate having meals served too early. Meal times in the facility should be as similar as possible to those in the patient's home situation. Desirable times for the trays to reach the ward are:

Breakfast	-	not before 0730 hours
Noon Meal	-	as close to 1200 hours as possible
Evening Meal	-	not before 1700 hours.

Tray Delivery

Prompt delivery of the tray carts to the patient area is vital. Usually dietetic staff have responsibility for this function. The delivery and pick-up of trays can be by nursing or dietetic staff, depending on circumstances.

Patient Visiting

A system should be arranged that allows necessary and easy contact with the dietitian/nutritionist for education of patients and staff on therapeutic matters.

All new patients should be visited as soon after admission as possible by a member of the dietetic staff, preferably the person in charge. A visit such as this allows for direct communication with the patient about his food likes and dislikes such as: type of cereal for breakfast, type of bread desired, and type of beverages desired. Patients on special diets or those on "as desired" diets may require frequent visits and also consultation with the dietitian/nutritionist.

The policy for visiting should be that all patients are visited at least once per week by a member of the Department of Dietetics.

Patient Discharge Diets

Patients who require diet information and instruction should receive this service before the time of discharge. Therefore, time is required in order to plan for the instructional session or sessions.

Depending on the situation in each facility, discharge diets may be stocked and issued by the Director of Dietetics or the charge nurse.

The diets used for discharge purposes should be similar to those in the diet manual. In some provinces, discharge diets are supplied through the Dietetic Association, the government health services plan, or the health care association. It is not advisable to use diets made available by the various drug manufacturers.

Patient Nourishments

Facilities have different policies in regard to the number of times between-meal nourishments will be served in a day and the department that will have responsibility for the service.

The practice of serving nourishments three times a day to all patients requires review. More recently there has been a trend to reduce this in favour of afternoon and evening service or only evening service. In any case, there will be variations in the system as required by the kinds of special diets ordered.

In some facilities, the dietetic staff prepares and delivers nourishments directly to patients and this affords a good deal of control over supplies. In other cases, nourishments are ordered and supplied by the dietetic staff for the ward kitchenette (see Nourishment Order Form) and supplies are portioned and dispensed by nursing staff.

Nourishment Order Form - to be completed by dietetic staff.

	Quota	Date On Hand	Order
Milk - whole			
2%			
skim			
Juices			
Margarine			
Sodas			
Bread			
Etc.			
Teabags			
Instant Coffee			
Ordered by:			
Approved by:			
Approved by:			

SAMPLE

Ice Water Distribution

In most facilities, because ice supplies are usually located in the patient area, ice water distribution is the responsibility of nursing services, while the dietetic service is responsible for the washing of water glasses and carafes. The latter can be scheduled to fit in with regular dishwashing procedures.

In conjunction with nursing, policies are needed to determine clean equipment and supplies required from the Department of Dietetics and the time of delivery.

Serving Food

The serving of good food reflects not only the menu but also the degree of excellence of the food as determined by:

- the quality of preparation
- the quality of service.

A watchful department head will try to ensure that the best quality food is served within cost allowances.

Food should be tasted before it is served for acceptability and temperature. A thermometer should be used frequently to test temperatures.

In most facilities, the food is usually served in close proximity to the preparation area and this is referred to as centralized service. For control purposes and to realize staffing economies, this is more desirable than the decentralized method in which food is moved in bulk food carts to possibly one or more locations in the facility for serving.

Foods should be prepared as close to serving time as possible. The serving should take place without delays in order to ensure that the food reaches the patient or customer at the correct temperatures. In some cases where the distance between the preparation area and patient area is a problem, it may be necessary to use temperature maintenance equipment such as:

- hot and cold carts
- stacked trays
- pellets
- plastic insulated base and dome
- insulated soup bowls and beverage containers

to maintain foods at acceptable temperatures during transport.

Recommended Serving Temperatures

Item	Temperature
Broth, Soups & Hot Beverages	82° - 88° C (170 - 190°F)
Meat, Portioned for Serving	60° - 71° C (140 - 160°F)
Creamed Soups, Creamed Sauces, & Casseroles	65° - 75° C (149 - 167°F)
Potatoes & Vegetables	60° - 65° C (140 - 149°F)
Chilled Food & Beverages	4° - 12° C (39 - 54°F)

Other Considerations in Serving Food:

Portion control is a necessity (see page 66)

All precautions should be taken to make sure that food is free from contamination and is safe to eat, which requires proper storage of food and proper methods of handling foods by personnel knowledgeable about safe handling practices. (See The Sanitation Code and page 39).

Food returns should be checked routinely to determine patient and staff satisfaction and suitablity of foods served.

Staff Meals

Arrangements for staff feeding can vary but where there is a staff dining room provided it is important to have it used at least in the daytime for meal service and coffee breaks. In smaller facilities where the number of staff purchasing food is small or unpredictable, orders for the foods offered on the menu should be placed in advance with the Department of Dietetics.

It is undesirable to allow facility staff free entry into the kitchen; however, where there is no cafeteria, it should be possible for staff to pick up some items from a table or cart just inside the kitchen door. The hot menu items should be served by a member of the dietetic staff and passed to the customer.

Payment for meals and snacks can be by tickets, cash or payroll deduction. The business office should determine the proper recording and reporting procedures to be followed in tabulating food purchases by staff.

Meal charges should be determined by the business office and the Director of Dietetics. (See page 17).

Feeding the Resident in a Personal Care Home

In a personal care or nursing home the resident preferably eats his meals in a dining room setting. Usually tables for four are recommended and some should be adjustable for height in order to allow for the circulation of wheelchairs and persons using walkers, etc.

One serving method found to be satisfactory is to pre-set the tables with cutlery, dishes and condiments, etc. At meal times, the residents who are seated at the tables are served by dietetic staff who deliver the individual plates and other menu items to the residents from a nearby serving area.

Dishes, glasses and cutlery need to be chosen carefully as design and weight are important. Self-help aids or special devices such as utensil holders and plate guards may be required by some residents. Consultation with others will be required to determine if special equipment is needed.

Residents eating in the dining room should be supervised by nursing staff who would always encourage self-help but would assist the resident as necessary.

In this setting, it should be easy for dietetic staff to observe the eating habits of the elderly, report problems, and encourage good eating habits. Some residents may need special consideration for a few meals. The Director of Dietetics has to be aware of the foods which are required for good health (see Canada's Food Guide, page 43) and plan the menu for the residents accordingly. Remember that some menu items are difficult for the resident to manage. Difficulties in chewing may be encountered but, foods should never be served pureed, minced or chopped unless it is absolutely necessary. Keeping the food as whole as possible will be more appealing in consistency and colour.

The need for each resident to receive a fruit or pure fruit juice to provide the Vitamin C in the diet daily, and also sufficient calcium in the diet, cannot be overemphasized.

The elderly must be kept healthy. The assignment for the dietetic staff is to make sure that meal time is pleasant and that the food intake of the residents provides them with the nutrients required.

The Director of Dietetics should be involved in regular discussion with Nursing regarding the nutritional needs of the residents, including evaluation of weight gain or loss, other nutritional needs and personal preferences.

PURCHASING

Purchasing decisions will be determined by:

- type of people to be served
- size and location of the facility
- availability and price of various items
- area available for storage of staples, refrigerated and frozen foods
- abilities of the dietetic staff
- available equipment
- allocation of budget
- menu

One should strive to obtain the right product at the right time in the right quantity and at the right cost. Value should be the first consideration; price should not be the only criterion.

Written Specifications

In order to buy what is needed there should be written descriptions for each item to be purchased. They should be simple but have enough details to ensure that the product bought will be the right one. The information can be listed on a filing card and would include:

- name of item
- quality (grade, trade name)
- size (weight range, number of units per carton or case, or minimum-maximum weight)
- quantity (cases, kilograms, pieces, cartons, etc.)
- unit of pricing (per kilogram, per dozen, etc.)

These cards can be filed under major food groups such as cereals, fruits, etc. and are kept in a small filing box.

Group Purchasing

Wherever possible it is usually more advantageous to buy in participation with other facilities in the vicinity, i.e. nursing homes, homes for the aged, and hospitals. By doing so, better prices and service probably can be obtained because the volume is larger. Many provincial hospital associations do have a group purchasing service which helps the small facilities achieve better purchasing practices. It is quite possible that the actual purchasing will be performed by someone other than the Director of Dietetics (administrator, business manager). It is, therefore, essential to have well-prepared, clear orders, and good

communication between the two departments. The Director of Dietetics should have final approval to establish the standard of product quality.

Inventory

The quantity of items in storage (or on hand) needs to be known if the department is to control its operations efficiently and if accurate costs are to be maintained.

There are two types of inventory:

1) Physical Inventory

Physical inventory is an actual count of the quantities of food and supplies on hand. The inventory will list the item, unit size and number of units on hand. The unit price and total cost of items may be calculated monthly but must be calculated annually. The list is usually divided into food groups, such as fruits (canned, fresh, frozen) and grocery items (spices, cereals, condiments). It is customary that non-perishable items are ordered on a monthly basis whereas perishable items are ordered more frequently. (See Sample Physical Inventory (page 35)

2) Perpetual Inventory

Items received and their cost are recorded on a card. A separate card is needed for each item. The total of the items on hand is shown and as items are taken out they are deducted from the total. This card can also show the minimum-maximum level to be maintained on hand. A physical count of each item is usually taken on a yearly basis to ensure that the totals on the cards are reconciled with the items on hand. The total cost of inventory items may be calculated monthly but must be calculated annually. (See Sample Perpetual Inventory, page 36)

How Much to Buy

Several factors will dictate how much to buy:

- how many people you serve at each meal: patients, staff, visitors, etc;
- type of patients: children, teenagers, elderly. Appetite does vary with the age and condition of the patients;

- acceptability of the menu: some menu items are always more popular than others;

- geographic location: distance from suppliers;

- amount and type of storage space available.

Suggested Purchasing Procedures

1) Establish regular purchasing times (i.e. every 4th Monday) to order non-perishables.

2) Quantities to be purchased should be of economical size. If the requirement for seldom-used items is small, buy only a small amount, i.e. a one-kilograms container versus a 5-kilogram container.

3) Wherever indicated, buy institutional packs or sizes rather than household sizes.

4) Wherever possible, it is desirable to have more than one price quoted prior to placing an order. (See example of a purchasing guide, page 37).

5) Determine the cost advantages of buying frozen food versus canned foods, especially in areas where freight and delivery charges are high.

6) Establish delivery times with the supplier or transport.

7) Check and sign all incoming orders to ensure that they meet the purchasing order requirements and that all items are included in the delivery.

8) Verify the weight of items that are sold by weight (pounds, kilograms, grams).

9) Return merchandise if the quality does not meet the specifications.

SAMPLE ONLY

PHYSICAL INVENTORY

Date _____

Item	Specification	Maximum Stock	Minimum Stock	Unit Size	Cost/Unit $	Quantity on Hand		
						Oct	Nov	Dec
Canned Vegetables								
Diced Beets	Canada Choice	3 cases	1 case	19 fl.oz.(564 mL)	$0.20/can	24 cans		
Harvard Beets	Canada Choice	1 case	5 cans	19 fl.oz.(564 mL)	0.23/can	18 cans		
Stewed Tomatoes	Canada Standard	2 cases	1 case	100 fl.oz.(3 L)	2.00/can	2 cans		
Mushrooms (stems & pieces)	Canada Standard	1 case	2 cans	100 fl.oz.(3 L)	5.00/can	4 cans		
Canned Juices								
Tomato Juice	Canada Choice	5 cases	2 cases	100 fl.oz.(3 L)	2.50/can	10 cans		
SF Tomato Juice	Canada Choice	2 cases	1 case	19 fl.oz.(564 mL)	0.35/can	20 cans		
Uns. Orange Juice	Canada Choice	10 cases	3 cases	48 fl.oz.(1.5 L)	0.75/can	35 cans		
Canned Fruits								
Peach Halves	Canada Choice	3 cases	1 case	100 fl.oz.(3 L)	6.00/can	2 cans		
Uns. Peaches	Canada Choice	1 case	6 cases	19 fl.oz.(564 mL)	0.63/can	1 can		
Dry Supplies								
Granulated Sugar	Free Flowing	300lb (136 kg)	100lb (45 kg)	100lb/bag (45 kg)	0.20/lb (454 g)	250lb (114 kg)		
Dry Mustard	Unflavoured	5lb (2 kg)	1lb (454 gm)	1lb/bag (454 g)	0.30/lb	1½lb (548 g)		

SAMPLE ONLY

PERPETUAL INVENTORY

Item: Diced Beets

No. or size - 553mL fluid oz (24 cans/case)
Specification - Canada Fancy
Minimum: - 1 Case (24 cans)
Maximum: - 3 Cases (72)

Date	On Hand	Used	Balance	Unit Cost	Total Costs
Nov. 1	96 cans			$4.00/case	$ 5.33
Nov. 5		22	74		
Nov. 12		2	72		
Nov. 16		22	50		
Nov. 21		1	49		
Dec. 3		24	25		
Dec. 5	72 cans		97	$4.50/case	$13.50

SAMPLE

SAMPLE ONLY

PURCHASING GUIDE FOR REQUIRED FOOD ITEMS

Food	Unit as Purchased	Size of Serving	No. of Servings /Unit Purchased	Quantity Required	
				50 Servings	20 Servings
Meat					
Minced Beef	kg (2.2 lbs)	85 g (3 oz)	9	6.5 kg (14¼ lbs)	2.7 kg (6 lbs)
Turkey, ready to cook	kg (2.2 lbs)	85 g (3 oz)	6½	9.1 kg (20 lbs)	3.6 kg (8 lbs)
Pork Chop	kg (2.2 lbs)	114 g (4 oz)	8	8.6 kg (17 lbs)	3.2 kg (7 lbs)
Fish					
Frozen Fish Fillet	kg (2.2 lbs)	85 g (3 oz)	9½	6.4 kg (14 lbs)	2.7 kg (6 lbs)
Fresh Fruits					
Apples	Basket 22 kg/48 lbs	1 Medium	125 - 130 7/kg (3/1b)	7.7 kg (17 lbs) ¼ box	3.2 kg (7 lbs) 1/5 box
Oranges	Box 18 kg/40 lbs	1 Medium	110 - 120 7/kg (3/1b)	7.7 kg (17 lbs)	3.2 kg (7 lbs)
Fresh Vegetables					
Carrots	Bushel 23 kg/50 lbs	114 g (¼ c)	200 10/kg (4/1b)	5.7 kg (12½1b)	2.2 kg (51b)
Lettuce	Case (18 heads)	1/6 head	108(6/head)	½ case	4 heads

SAMPLE

FOOD STORAGE

As soon as foods are received, they should be properly stored. This is especially important for chilled or frozen items in order to lessen the chance of deterioration.

Newly-delivered items should be put away in such a way as to ensure good stock rotation. Writing on the container the date the product has been received is an excellent way to avoid the possibility of older stock being held too long.

All storage areas should be kept locked. This minimizes the possibility of theft.

Dry Storage

Non-perishable supplies are usually stored for immediate use (day stores) or future use (bulk stores). In some instances bulk storage is not under the direct responsibility of the Department of Dietetics. Day stores are usually located within the kitchen area and should hold supplies for no more than three days.

All dry storage areas should be well-ventilated. In order to minimize handling and save time, not all items need to be removed from their cartons.

Items should be placed on shelves, racks or platforms. A space of up to 20.32 cm to 30.48 cm (8 to 12 inches) from the floor is needed to allow for ventilation and to facilitate cleaning. The shelves should be at a convenient height to keep goods within safe and easy reach.

Refrigerated Storage

Refrigerators and freezers should be equipped with thermometers which should be checked daily. If temperatures are not maintained at the appropriate levels they should be reported immediately to the physical plant department (maintenance).

In order that cold air can circulate freely, perishable food items should not be too close to each other. Frequent opening of doors should be avoided. All door gaskets should fit well. Items should not be stored on the floors. All mechanical parts, such as compressors, condensers, motors, drains and fans, which are the responsibility of the physical plant department, should be kept clean and in good working order. The cleaning of all

surfaces, interior and exterior, including walls, ceilings, floors and shelves (top and underside), is the responsibility of the Department of Dietetics.

All refrigerators and freezers should be locked when the department is closed and dietetic staff are not in attendance.

Recommended temperatures are:

Meat, Fish Poultry	2° - 4°C (33° - 36°F)
Fruits and Vegetables	6° - 9°C (40° - 50°F)
Dairy Products and Eggs	2° - 4°C (33° - 36°F)
Frozen Food	-18°C or below (0°F)

If only one refrigerator is available for non-frozen items, it should be maintained at 4°C - 6°C (36° - 40°F).

(a) Refrigerator Storage:

The condition of food stored in a refrigerator should be checked daily. Remove unusable portions.

Store foods that give off odours away from other foods that will absorb such odours. The following information may be helpful:

Item	Release Odours	Absorb Odours
Fresh apples	Yes	Yes
Butter	No	Yes
Eggs	No	Yes
Milk, cheese	No	Yes
Cabbage, onion	Yes	No
Fish & seafood	Yes	No

Care of Refrigerated Foods:

- Store fresh meats uncovered in containers or loosely wrapped.
- Store ready-to-serve meats, such as luncheon meats, in their original wrappings.
- Ground meat or meat trimmings should be stored in shallow, non-corrosive pans.
- Variety meats, such as liver and kidney, should not be stored longer than one week. They should be transferred from their original containers to

clean, non-corrosive pans; the pans should be drained of juices as they accumulate, since they cause souring.

- Cooked food should be placed in containers with tightly fitting lids or should be well wrapped.

(b) Freezer Storage

Fluctuating frozen temperatures increase ice crystal growth which, in turn, damages the cellular structure of meats, fruits and vegetables. Once such damage occurs it cannot be corrected.

Frozen foods must be tightly sealed in moisture-vapour proof containers and wrappers to help keep the moisture in and the air out. Improperly packaged frozen foods dry out during storage, resulting in an unattractive appearance (freezer burn).

Thawing

Frozen foods may be thawed in several ways depending on the type of food:

- by cooking, i.e. vegetables;
- by placing in the refrigerator, i.e. meat and fish;
- by placing in cool, drinkable, running water at 20°C (68°F) or below. This method of thawing is not encouraged.

When using frozen items, they should be removed and placed in the refrigerator in sufficient time to defrost unless they are to be cooked from the frozen state. Several days are needed to defrost turkeys, chickens and frozen eggs. Slow thawing in the refrigerator is recommended and to achieve this good planning is essential.

If food has been completely thawed and left at room temperature for even two hours or less, it should be cooked before it is refrozen. It if has been held at room temperature for an unknown period of time, it should be discarded.

MENU PLANNING

Fundamentals of Menu Planning

Menus must be planned to ensure that patients receive nourishing meals, that a variety of food is provided, and that efficient and economic use is made of food, supplies, labour and equipment.

Meals are well planned when they:

- look attractive and taste good
- fulfill the requirements of an adequate diet and satisfy the preferences of those being served
- demonstrate wise use of the money available in the budget
- make efficient use of staff and equipment
- limit amounts of salt, sugar and animal fat.

To be attractive, meals must have a certain amount of variety within the meal and from day to day. This is achieved by:

- different foods
- different combinations of foods
- different methods of preparation and cooking (i.e. steaming, boiling, baking, roasting, broiling, etc.)

Cooking methods related to equipment available, and preparation time and skill required by the staff, will influence the choice of menu items.

The selection of menu items will have a direct bearing on the cost of meals. An effort should be made to combine cheaper with more expensive foods in the daily and weekly menus. The cost of the menus must fit into the food and labour budget allowances.

A pleasing contrast of colours stimulates the appetite. If possible, a colourful food should be served in each course. A simple garnish of parsley, pickled beets, or lemon wedges, for example, can be very effective in adding colour to a plate.

Flavour combinations are important. Some foods naturally complement the flavour of other foods. Others will clash. Usually only one strongly-flavoured food is included in a course. A contrast of flavours such as tart and sweet, spicy and bland, can add interest to a meal.

Food of similar form and texture in the same meal should be avoided. A soft food, such as a creamed dish, needs a crisp salad or toast for contrast. Also, a heavy main course is best served with a light dessert.

The season of the year should also be considered in menu planning, in that a cold meal will be more acceptable on a hot summer's day. No matter how well a meal is planned, prepared and cooked, it will not be appreciated if it is not served at the appropriate temperature. Serve hot foods hot and cold foods cold. The most common complaints about food in health care facilities concerns unsatisfactory temperatures.

Most important of all in menu planning is the need to include all those foods which will ensure that the day's nutritional requirements are met. This can be assured by following Canada's Food Guide, a simple plan which recommends a selection of a variety of foods from a variety of Food Groups.

Basic Tools for Menu Planning

1) A set of tested recipes of suitable size for the groups being fed.

2) A list of menu items, by category - soups, entrees, vegetables, salads, desserts.

3) A market list showing current prices of meats, fish, fruits and vegetables available and in season.

4) A copy of Canada's Food Guide (see page 43).

5) A copy of Food and Your Heart, available from Health and Welfare Canada.

6) A copy of the diet manual approved by the medical staff.

CANADA'S FOOD GUIDE

(Eat a variety of foods from each group every day)

FOOD GROUP	SERVINGS PER DAY		EXAMPLES OF ONE SERVING
Milk & Milk Products	Children (up to 11 years)	2-3	250 mL (1 cup) milk, yoghurt or cottage cheese
	Adolescents	3-4	45 g (1½ oz) cheddar or process cheese
	Pregnant & Nursing Women	3-4	
	Adults	2	
Meats and Alternates		2	60-90 g (2-3 oz) cooked lean meat, poultry, liver or fish 60 mL (4 tbs) peanut butter 250 mL (1 cup) cooked dried peas, beans or lentils 80-250 mL (1/3-1 cup) nuts or seeds 60 g (2 oz) cheddar, process or cottage cheese 2 eggs
Breads and Cereals (Whole grain products are recommended)		3-5	1 slice of bread 125-250 mL (½-1 cup) cooked or ready-to-eat cereal 1 roll or muffin 125-200 mL (½-¾ cup) cooked rice, macaroni, spaghetti
Fruits and Vegetables (include at least two vegetables)		4-5	125 mL (½ cup) vegetables or fruits 125 mL (½ cup) juice 1 medium potato, carrot, tomato, peach, apple, orange or banana

A Pattern for Meals

BREAKFAST

Fruit or Pure Fruit Juice (preferable citrus)
Whole Grain Cereal
Toast - Margarine
Egg or Other Protein Food (if desired)
Tea, Coffee, Milk (2% or skim)

DINNER

(Mid-day or Evening)

Meat, Fish or Poultry
Potato, Other Vegetable(s)
Fruit or Fruit Dessert
Whole Grain Bread - Margarine (if desired)
Tea, Coffee, Milk (2% or skim)

LUNCHEON OR SUPPER

Cheese, Egg or Other Protein Food
Vegetable and/or Salad
Whole Grain Bread - Margarine
Dessert
Tea, Coffee, Milk (2% or skim)

SAMPLE

Steps in Menu Planning

1) Decide on the period the menu is to cover, i.e. 8 days, 15 days or 20 days. This will establish the cycle. At the end of the period, the menus can then be repeated. It will be necessary to make alterations for seasonal foods, and substitutions for foods found to be unpopular or temporarily too expensive.

2) Build the menu around the main dish. The dinner main dish is usually decided on first. The luncheon or supper main dish is the second item to consider for the menu cycle.

3) Decide on the kind of potatoes or substitute to be served with the main course.

4) Include one or more vegetables which blend well with the other items, considering colour, flavour and texture. These may be used in the main dish, soup, salad or a sandwich. Serve a raw vegetable as often

as possible. The daily menu should include two vegetables, at least one being a green, yellow or green leafy vegetable.

5) Choose the fruits. One of these should be a citrus fruit or pure fruit juice served either at breakfast, as an appetizer, or in a salad or dessert. Two servings of fruit or pure fruit juice should be included daily.

6) If a salad is being served, suit it to the main course. For example, if the main course is heavy, serve a light salad. If the main course is a salad plate, include a protein food, such as egg, cheese or cold meat.

7) Usually soup is served with the luncheon or supper meal. If served, soup should blend with and complement the main dish: a light soup with a heavy meal, a heavy soup with a casserole or salad plate. Take care that the meat flavour or vegetables in the soup are not repeated elsewhere in the meal.

8) Bread, preferably whole grain, is usually offered with all meals. Rolls, muffins, etc., make a nice change.

9) Balance the dessert with the rest of the meal. For variety, plan so that fruit, fruit desserts and puddings are used at both the noon and evening meals. Use fresh fruit at least once a week.

10) Colourful garnishes and relishes should be chosen to complement the main course.

11) Tea, coffee and milk (preferable 2% or skimmed) should be available for all meals. Children should always be served milk.

Between-Meal Nourishments

Fruit drink, instead of pure fruit juice, may be served between meals. If the day's menu is nutritionally adequate, the use of pure fruit juice as a nourishment is unnecessary. In the evening, a nourishment consisting of a beverage and a light snack should be served.

STANDARD DIETS*

Standard diets include:

- Clear Fluid
- Full Fluid
- Soft
- Regular

Standard diets must be planned for each day. The cycle menu shows the regular diet. This menu is used as a basis for planning other standard diets and special diets. Not only does this reduce the number of special foods to be prepared, but also simplifies menu planning.

The Clear Fluid Diet consists of clear liquids only, which means no milk is used. The purpose of the diet is to supply fluids for the body. The diet is not nutritionally adequate, so should be used for brief periods only. Feedings should be given every two hours or more frequently if possible.

The Full Fluid Diet provides fluids for the body, and gives some nourishment as well. Milk is used as desired. The diet consists of all foods that are liquid or that will liquify at body temperature, such as ice cream. Only mild flavoured foods are used. The diet is not nutritionally adequate, and should be used for as brief a period as possible. The meals follow the regular meal pattern but more frequent feedings may be given if required.

The Soft Diet includes liquid and soft bland solid foods which are easily digested. The diet should be adequate in all nutrients.

The Regular Diet includes all foods and is nutritionally adequate.

Sample Food Allowed in Standard Diets*

Type of Foods	Clear Fluids	Full Fluids	Soft	Regular
Beverages	Clear carbonated beverages, clear tea, clear coffee, strained fruit juice	Same as Clear Fluid, plus milk & mild drinks	All beverages and all fruit juices	All

* Headings and foods will vary in accordance with the diet manual approved for use in the facility.

Type of Foods	Clear Fluids	Full Fluids	Soft	Regular
Bread	None	None	White bread or rolls, soda crackers, melba toast	All
Cereals	None	Thinned Oatmeal or thinned cream of wheat	Oatmeal, cream of wheat, refined ready-to-eat cereal, rice macaroni, noodles, spaghetti	All
Desserts	Plain jelly, water ice	Same as Clear Fluids plus plain ice cream, junket, sherbet, custard	Jelly, ice cream, sherbet, junket, custard, fruit whips, milk puddings, plain cake, plain cookies	All
Fat	None	Butter, margarine, cream	Butter, margarine, cream	All
Fruits	Strained fruit juices	Strained fruit juices	All fruit juices; soft cooked or canned pears, peaches, apricots, ripe bananas; applesauce; orange and grapefruit sections without skins or seeds	All
Vegetables	None	Tomato juice, vegetable puree for cream soup	Tomato juice, patatoes, asparagus tips, wax or	All

Type of Foods	Clear Fluids	Full Fluids	Soft	Regular
			green beans, beets, carrots, peas, squash, spinach, lettuce, tomatoes	
Meat & Alternates	None	Egg nogs and fruit nogs	Egg in any form except fried, cottage, cream, process & mild cheddar cheese; crisp bacon, tender beef, veal, lamb, liver, turkey and chicken without skin; any lean white fish	All
Soups	Clear broth, consomme, bouillon	Same as Clear Fluid plus strained cream soups	Any form of vegetables allowed on diet	All
Misc.	Sugar, salt, in moderation	Sugar, salt, in moderation	Sugar, salt, jellies, honey, maple syrup, mild seasonings and salad dressing in moderation.	All

Adaptation of the Regular Menu for Special Diets

To keep the number of menu items to be prepared for each meal at a minimum, special diets should be planned with the regular menu as a guide.

The procedure for one day may be as follows:

1) List the regular menu items vertically down the left-hand side of the page.

2) Across the top of the page, show headings for each type of special diet as used in the approved diet manual. Similar types of diets may be grouped (i.e. low calorie and diabetic).

3) Check off under each heading those regular menu items which are allowed on the diet, using the approved diet manual as a reference.

4) Plan to use regular menu items for as many diets as are allowed on the diet, using the approved diet manual as a reference.

i.e. Regular menu - creamed chicken
Low Fat menu - creamed chicken made with skim milk
Low Sodium menu - creamed chicken made without salt

5) Plan substitute menu items for special diets where necessary, choosing a food which may be used by as many other diets as possible. (See Sample, page 50)

6) Plan for the whole menu cycle in this way.

SAMPLE EIGHT DAY MENU

	1st	2nd	3rd	4th	5th	6th	7th	8th
BREAKFAST	Orange Juice Rolled Oats Bran Muffins	Grapefruit Cracked Wheat	Apple Juice Wheat Flakes Poached Egg	Orange Farina	Blended Juice Bran Flakes	Apple Juice Rolled Oats	Stewed Prunes Shredded Wheat Soft-cooked Eggs	Grapefruit Juice Puffed Wheat
DINNER	Irish Stew with vegetables Boiled Potato Hasty Pudding	Cottage Roll - Mustard Pot. in Jacket Wax Beans Apple Crisp	Baked Fish Fillets - Tartar Sauce Parsleyed Pot. Diced Beets Chocolate Blanc Mange	Braised Liver - Catsup Lyonnaise Pot. Mashed Turnips Jellied Bananas	Salmon Loaf - Parsley Sauce Baked Potato Mixed Vegetables Lemon Pie	Swiss Steak Mashed Potatoes Julienne Carrots Pineapple Upside-Down Cake	Roast Turkey - Cranberry Sauce Franconia Pot. Green Beans Apricot Bavarian Cream	Meat Loaf - Spanish Sauce Cottage Fried Pot. Cabbage Wedges Johnny Cake - Maple Syrup
LUNCHEON or SUPPER	Chicken Rice Soup Macaroni and Cheese Tossed Salad Berries Coconut Cookies	Scotch Broth Cold Meat, Pickles Scalloped Pot. Perfection Salad Peaches Brownies	French Pea Soup Chef's Salad Bowl Fresh Fruit Crusty Rolls	Vegetable Soup Scrambled Eggs on Toast Lettuce Wedge Cottage Pudding - Caramel Sauce	Tomato Juice Weiners and Beans Cabbage & Apple Salad Baked Custard Oatmeal Bread	Beef Barley Broth Sandwich Plate Celery, Radishes Pear Peanut Butter Cookies	Tomato-Rice Soup Corned Beef Hash - Catsup Orange-Spinach Salad Chocolate Layer Cake	Cream of Pot. Soup Fruit Salad Plate with Cottage Cheese Ice Cream Raisin Bran Muffin

SAMPLE ADAPTATION OF REGULAR MENU FOR ONE DAY FOR SPECIAL DIETS*

REGULAR	SOFT AND BLAND	LOW CALORIC AND DIABETIC	LOW FAT	3 G SODIUM	FULL FLUID	CLEAR FLUID
Breakfast						
Orange Juice	X	Unsweetened	X	X	Strained	Strained
Rolled Oats	Strained	X	X	X	Gruel	None
Jam	Jelly	None	X	X	None	None
Dinner						
Irish Stew	Rst. Lamb	Lean Rst. Lamb	Lean Rst. Lamb	X	Consomme	Consomme
Vegetables	Carrots	Carrots, Spinach	Carrots	X	None	None
Boiled Potato	X	X	X	X	None	None
Hasty Pudding	Banana	Banana	Banana	Banana	Ice Cream	Jello
Lunch or Supper						
Chicken Rice Soup	Cream Pea Soup	Strained FF Chicken Rice Soup	FF Chicken Rice Rice Soup	X	Str. Cr. Peas Soup	FF Chicken Broth
Macaroni and Cheese	Bland Macaroni and Cheese	D. Macaroni and cheese	FF Macaroni and cheese	X	None	None
Tossed Salad	None	X	X	X	None	None
Berries	Jello	Unsweetened berries	X	X	Jello	Jello
Cookies	Plain cookies	None	None	None	None	None

* The headings used should be in accordance with the approved diet manual

X Regular Menu Item
FF Fat Free
D Diabetic
SF Salt Free

SUGGESTED LUNCHEON OR SUPPER DISHES WITH VARIATIONS FOR THERAPEUTIC DIETS

REGULAR	BLAND	LOW FAT	LOW CALORIC AND DIABETIC
1. Macaroni & cheese	Macaroni with bland cheese sauce (use process Cheese)	FF Macaroni & cheese (use skim milk & skim milk cheese)	*Macaroni & cheese
2. Spaghetti with meat sauce or spaghetti & tomato with tiny meat balls	Baked Meat loaf (no onion) buttered noodles	Spaghetti with tomato Lean cold meat or baked meat balls	*Beef and spaghetti casserole
3. Spanish rice, crisp bacon	Creamed sweetbread on toast	Lean cold meat Spanish rice (no green pepper)	Lean cold meat Spanish rice (see recipe below)
4. Corned beef hash	Cold roast beef, baked potato	Lean cold beef Baked potato	Lean cold beef Baked potato
5. Corn scallop, bacon or cheese bars or bologna	Crisp bacon, potato puffs	Fruit salad plate with skim milk cheese	Cheese *Corn pudding
6. Tomato scallop, cold meat	Creamed asparagus tips on toast	Tomato scallop (no onion) Lean cold meat	Lean cold meat *Escalloped tomato
7. Omelet - plain, cheese or chinese	Plain omelet, scrambled eggs	Lean cold meat, baked potato	Plain omelet Baked potato
8. Potato scallop, cold meat	Potato scallop (no onion, no pepper) Tender cold meat	FF Potato scallop (no onion) Lean cold meat	Lean cold meat *Escalloped potatoes
9. Tuna & rice casserole	Chicken & rice casserole	FF Chicken & rice casserole	*Tuna fish & rice casserole
10. Creamed chicken in toast cups	Creamed chicken on toast	FF creamed chicken in toast cups	*Chicken a la King

SAMPLE

*Recipe in "Cookbook for Diabetics", the Canadian Diabetic Association, published by Burns & MacEachern.

Spanish Rice - (2 servings)
2/3 cup cooked rice
3/4 cup canned tomatoes
1/4 cup green pepper
2 tsp onion
salt
pepper

1 serving equals:
1 bread
1 vegetable B

REGULAR	BLAND	LOW FAT	LOW CALORIC AND DIABETIC
11. Salad Plates a) Stuffed eggs, potato salad on lettuce, tomato and cucumber slices, pickles	Scrambled eggs, baked potato	Skim milk cheese, or lean meat, or plain cottage cheese (not creamed)	Sliced egg & cheese *Potato salad on lettuce, tomato & cucumber, dill pickle
b) Cold meat or fish, plain or diced with celery & mayonnaise, potato salad on lettuce, pickled beets, celery sticks, carrot curls	Turkey sandwich (no mayonnaise)	Baked potato Tomato, lettuce, celery carrot sticks, vinegar beets, etc OR	*Chicken or fish salad Baked potato, pickled beets (in vinegar)
c) Cottage cheese, tomato rose, pickles, perfection salad, potato & egg salad on lettuce	Cottage cheese, peaches, pears apricots, plain jello (no lettuce)	Fruit salad plate (no mayonnaise)	Cottage cheese, tomato slices *Potato salad on lettuce *Perfection salad
12. Sandwich plates a) Ham & pickle, egg salad, celery & radish garnish	Chopped egg sandwich (no onion, no mayonnaise)	Lean sliced cold meat or turkey	*Minced meat sandwich, celery & radish garnish
b) Turkey salad, cheese & pickles, garnish lettuce & tomato	Processed cheese sandwich	Skim milk cheese, lettuce and tomato	*Chicken sandwich, lettuce and tomato garnish
c) Salmon salad, egg & bacon filling, pickled beets, lettuce garnish	Plain chicken or beef sandwich	Chicken or lean meat sandwich plain	*Salmon sandwich, pickled beets on lettuce garnish
13. Open-faced broiled tomato, cheese & bacon	Toasted chicken sandwich	Open-faced broiled tomato, skim-milk cheese (no bacon)	*Grilled cheese & bacon sandwich with tomato garnish

SAMPLE

*Recipe in "Cookbook for Diabetics", The Canadian Diabetic Association, published by Burns & MacEachern.

REGULAR	BLAND	LOW FAT	LOW CALORIC AND DIABETIC
14. Creamed salmon & peas on tea biscuit	Creamed eggs & peas on toast	Meat vegetable casserole using FF broth	*Meat vegetable casserole
15. Creamed ham & eggs on corn bread	Poached eggs on toast	Lean cold meat, mashed potato	Lean cold meat, mashed potato
16. Salmon, ham or turkey croquettes	Cold turkey, baked potato	Cold turkey, baked potato	*Salmon-celery casserole
17. Welsh rarebit on toast points or cheese fondu	Cheese fondue (process cheese)	Welsh rarebit (skim milk & skim milk cheese)	*Grilled cheese sandwich
18. Hot meat sandwich	Plain tender meat sandwich	Plain lean meat sandwich	Cold sliced meat sandwich
19. Weiners stuffed with cheese, rolled in bacon, baked	Broiled beef pattie (no onion) on bun	Broiled beef pattie (no onion) on bun	*Hot dog delight
20. Fish cakes	Baked fish cakes (fresh fillet, no onion)	Baked fish cakes (no egg, no onion)	*Salmon & celery casserole
21. Fish Chowder	Oyster stew (no onion)	FF Fish chowder (no onion)	*Oyster stew
22. Shepherds Pie	Shepherds Pie (no onions, no broth)	Shepherds pie (no onions, FF broth)	*Shepherds Pie

*Recipe in "Cookbook for Diabetics", The Canadian Diabetic Association, published by Burns & MacEachern.

FOOD PREPARATION

"Food Preparation" is a broad term which includes all of the things done to make food edible and flavourful.

This includes cooking, baking, salad making, sandwich making.

Essential to proper food preparation are:

- a clean work environment
- clean, well-maintained equipment and utensils
- tested, standardized recipes
- accurate measurements.

"Cooking" is the application of heat to food.

Foods are cooked for the following reasons:

- to make some foods more appetizing as to appearance, texture and flavour;
- to make some foods more digestible by softening fruit and vegetable cellulose, softening wheat fibre, bursting cereal and starch granules;
- to destroy certain bacteria;
- to make meals more interesting by increasing variety.

Canada's Food Guide recommends four groups of foods to be included in the daily diet.

The groups are: Meat, Eggs, Fish, Poultry
Milk
Vegetables and Fruit
Bread and Cereal

Preparation of Each Group

1) Meat and Alternates

(a) Meat

The term "meat" is applied to the flesh of beef, pork, veal, mutton and lamb.

Meat is a significant source of protein, vitamins and minerals.

There are two basic methods of cooking meats; they may be cooked by dry heat and by moist heat.

Heat is actually neither dry nor moist. These terms are used to differentiate between cooking meat with or without moisture (liquid or steam). Usually, tender meats are cooked by dry heat methods and less tender meats are cooked by moist heat methods.

Dry Heat Methods include:
- roasting or baking
- broiling and grilling
- sautéing
- pan frying

Moist Heat Methods include:
- steaming
- simmering
- poaching

Combinations of the two methods include:
- braising
- stewing

Definitions of the above methods:

Roasting or Baking: cooking uncovered in the oven with little or no liquid added.

Meat to be roasted is usually placed fat side up in a shallow roasting pan. The roast should not be covered. Meat should be roasted at temperatures of 135° - 160°C (275°F - 325°F).

Broiling: cooking by direct heat over hot coals, such as charcoal or briquets, or under gas flames or electrical units.

Grilling: cooking on a solid grill or griddle where the product is not directly exposed to open heat.

Sautéing: a French term meaning to fry lightly and quickly in a small amount of fat.

Pan Frying: a similar procedure to sautéing. It differs only in the amount of fat (usually 1/8" deep) used in the pan.

This method incurs a high fat content and therefore should be used only occasionally.

Steaming: cooking in steam with or without pressure.

Simmering: cooking in a liquid just below the boiling point at temperatures of 85°C - 93°C (185°F - 200°F) for long periods (i.e. one hour or more). Bubbles form slowly and break below the surface.

Poaching: the same process as simmering but the term is usually applied when shorter cooking periods are used.

Braising: a combination of moist and dry heat cookery. Dry heat for browning purposes may be applied by baking or frying. A small amount of water is then added and the pan or kettle is closely covered until the meat becomes tender.

Another method of braising is cooking in a tightly closed pan in the oven. No water is added because steam provides the moist heat necessary to tenderize the meat.

Stewing: the process of cooking food in a small amount of liquid, usually no more than required to cover the food. Meat should be stewed at temperatures of 85°C - 87°C (185°F - 190°F).

(b) Eggs

Eggs are an excellent source of protein. They are used as menu items as well as in a variety of other ways:

- binding agent (preparation of meat loaf)
- emulsifying agent (preparation of mayonnaise)
- thickening agent (preparation of custard)
- adhesive agent (preparation for breading)

Cooking eggs changes their flavour and consistency and makes them more palatable. Eggs are cooked at low temperatures. Most popular methods of cooking eggs are:

poaching
simmering
scrambling
frying
making omelettes

Specific Methods of Egg Cookery:

Poaching: cooking the egg out of the shell in hot water. Fill a reasonably shallow pan with enough salted water to cover the eggs. Bring the water to boiling point. Reduce heat. Add eggs by sliding them off a saucer and leave to simmer until they are cooked as desired.

Simmering (cooked in shell): Place eggs in boiling water. Return to simmer and cook to desired doneness. Soft-cooked eggs require 3-5 minutes; medium-cooked, 7-8 minutes; hard-cooked, approximately 15 minutes. This is usually referred to as boiling eggs.

Scrambled: Break eggs in a bowl. Beat slightly with fork or wire whip. Add small amount of milk (1 tablespoon to 2 eggs). If excess liquid is used the eggs may weep after serving. As egg cooks on bottom of pan lift carefully with a spoon and allow the uncooked egg to run under. Do not stir.

Frying: Melt small amount of fat in frying pan or skillet. Add eggs by sliding each one off a saucer into the frying pan. Lower heat. The pan may be covered or the eggs may be turned according to preference.

Omelettes: Omelettes are similar to scrambled eggs except that they form a solid sheet of coagulated eggs, which are folded and often filled with jams, cheese, ham or other ingredients.

(c) Fish

There are two categories of fish: fin fish and shellfish.

Fin fish include all edible fresh water and salt water fish possessing fins.

Shellfish are further divided into:

crustacea - lobsters, crayfish, shrimp, crab
mollusks - clams, oysters, scallops

Fish is highly perishable and must be kept under refrigeration at all times. Frozen fish should be kept frozen until ready for use and should never be refrozen.

Fish is rich in protein, vitamins and minerals. Many fish oils are particularly high in vitamins A and D; salt water fish are valued for their iodine content as well.

The method chosen for cooking meat and poultry is largely based on the tenderness of the cut. With fish, the fat content of the fish dictates the cooking method.

Some fish of high fat content are:

Bluefish	Mackerel	Smelts
Haddock	Salmon	Tuna
Herring	Sardines	

Some fish of low fat content are:

Cod	Lobster	Sole
Clams	Pickerel	
Crab	Shrimp	

As a general rule, the moist heat methods of cookery are used for the more lean fish and dry heat methods for those of higher fat content.

Moderate temperatures are preferred.

(d) Poultry

All domestic birds that are bred and marketed for human consumption are classified as poultry.

Poultry is an excellent source of protein, vitamins and minerals.

Poultry is highly perishable and should be properly handled during preparation, cooking, cooling and serving to prevent contamination that might cause serious food poisoning.

Frozen poultry should be held at -18°C (0°F) or lower.

Refrigerated poultry should be held at 4°C (40°F) or lower for no longer than 72 hours.

Cooked poultry awaiting use should be held hot at 60°C (140°F) or higher, or cooled and held at 4°C (40°F) for no more than 72 hours.

Generally speaking, the same cooking principles that apply to meat also apply to poultry.

2) Milk and Milk Products

Milk is one of the most complete food items in the diet. It is a rich source of protein, minerals and vitamins. Milk is low in iron and niacin. In most parts of Canada it is fortified with Vitamin D. Milk sold today is pasteurized (heated to destroy bacteria).

(a) Forms of Milk

Homogenized Milk or 4% Butterfat: whole milk in which the fat has been broken down and evenly distributed throughout.

Skim Milk: milk from which the butterfat has been removed.

2% Milk (2% butterfat): milk from which some of the butterfat has been removed.

Evaporated Milk: whole milk from which 50-60% of the moisture has been removed. It may be reconstituted by adding ½ can of water to 1 can of milk.

Condensed Milk: similar to evaporated milk. Sugar has been added to it so that the final product is about 40% sugar. This gives it a creamy consistency.

Non-fat Dry Milk: skim milk with the water removed. It is easily reconstituted to a liquid by adding water. It may be used in dry form in many recipes. It is also the least expensive of all milk forms.

Buttermilk: may be a by-product from the processing of sweet cream or sour cream in making butter.

Cultured Buttermilk: processed by adding favourable bacteria to skimmed milk or partially skimmed milk.

(b) Other Milk Products

Butter: the fat of cream separated from the other milk components by agitation or brisk motion. It may be made from sweet cream or sour cream. Sweet cream butter is sometimes sold unsalted for use in restricted salt diets.

Cheese: a product made from curd from whole, partly skimmed, or skimmed milk. Cheese is an excellent source of protein, calcium and vitamin A.

Cheese may be classified in four ways:

- hard grating cheese (Parmesan)
- hard cheese (Cheddar or Swiss)
- semi-soft cheese (Blue)
- soft cheese (Cottage)

The basic principle in cheese cookery is the use of low to moderate temperatures and minimum cooking time.

Yogurt: a cultured milk product made with either whole, partly-skimmed, or skim milk. The product may be plain or contain nearly any variety of real fruit.

3) Vegetables and Fruits

Canada's Food Guide recommends that four or five servings of vegetables and fruit be incorporated in the daily diet. These may be incorporated in the diet in their raw state, cooked or in juice form.

Vegetables and fruit are most valuable for the vitamins and minerals they contain and for their fibre and laxative properties.

The principle reason for cooking vegetables and fruits is to break down the cellulose so that they are more palatable and digestible.

The method of cooking vegetables determines the extent to which nutritive value, colour, odour and flavour are maintained.

Proper cooking methods preserve all these qualities.

Most methods of meat cookery can be used in vegetable cookery.

The three major changes that occur in vegetables as they cook are:

- change in flavour
- change in cellulose
- change in water content

The rules of proper vegetable cookery are:

1) Store fresh vegetables to maintain maximum food value.

2) Clean fresh vegetables thoroughly.

3) Cut fresh vegetables uniformly for even cooking.

4) Use only enough water to cover.

5) Use only boiling (salted or unsalted) water.

6) Cook in as small quantities as possible and as required.

7) Cook only until tender.

8) Cook as near to serving time as possible.

9) Cool with cold running water if not used immediately. Drain well.

10) Save the water in which vegetables are cooked for use in gravies, soup or reheating vegetables.

11) Drain well before serving.

12) Season to taste before serving.

Salad Making

Generally speaking, salads are thought of as cold dishes of leafy greens or other vegetables with the addition of a dressing.

Salads can be composed of many foods: protein (meat, cheese, eggs, fish), vegetables (raw or cooked) and fruit (raw or cooked) or combinations of these. Salads may be served as an appetizer, main course, side salad or dessert.

Including salads in the daily menu is a very acceptable way of supplying interesting variety in colour, texture and form as well as satisfying many of the recommendations of Canada's Food Guide.

Salad dressing may or may not be used. There are three basic dressings: French, mayonnaise, and cooked. All other dressings are made from these basic three.

4) Bread and Cereals

Canada's Food Guide recommends that three to five servings of bread and cereals be included in the daily diet. This may be accomplished by serving rolls, muffins, etc. as well as a whole grain cereal.

Baking:

The term "baking" has been referred to as a dry heat method of cooking meat, fish, eggs, vegetables and fruit.

The usual meaning of the term, however, is that of a baked product, i.e. pastry, cake, etc.

Baked products are basically wheat flour and liquid (milk or water) mixtures to which eggs, fat, sugar and leavening agent may be added.

During baking the mixtures are expanded by steam or air.

Baked products are divided into:

doughs
batters

Doughs are very thick mixtures that cannot be beaten but must be handled or kneaded manually or by machine. Mixtures for bread, rolls, biscuits are examples of doughs.

Batters are mixtures that are beaten and are poured or dropped. Examples are mixtures for muffins, cakes, cookies, etc.

Sandwich Making

Sandwiches have many forms and many uses. They may be flat or rolled, open faced, hot or cold.

Sandwiches generally have four parts:

- bread
- margarine or butter
- filling
- garnish

Bread:

All types of breads can be made into sandwiches and often two or more are used together. All bread should be fresh and sliced uniformly.

Margarine or Butter:

Margarine or butter add flavour. They also serve to join the bread to the filling. They should be spread uniformly over the entire surface of the bread.

Filling:

Protein fillings may be meat, fish, poultry, cheese and peanut butter. These may be combined with lettuce, pickles or nuts.

Vegetable or relish fillings may be asparagus, shredded cabbage and/or carrot, cucumber, green pepper, tomato, etc.

Sweet fillings of fruit, jams, jellies, honey, etc. may be used alone or in combination with cheese, peanut butter or nuts.

Garnish:

Garnishes for sandwiches should be edible and should harmonize both with the filling and the type of sandwich. Garnishes may be pickle, olives, fruit, parsley, celery, cauliflowerets, etc.

Storage of Sandwiches

Most sandwiches can be prepared in advance of serving time. They should be wrapped and stored in the refrigerator.

Open-face sandwiches and other unwrapped sandwiches should be placed on trays or baking pans, covered and refrigerated immediately.

Sandwich freshness will remain for 12-24 hours.

Sandwiches may be frozen. Most protein fillings freeze well. A few ingredients are unsuitable for use in sandwiches that are to be frozen, i.e. lettuce, celery, tomatoes, eggs, and fruit jelly. Sandwiches should be wrapped in small packages prior to freezing to ensure even thawing. Small packages (½ loaf of bread) require 2-3 hours thawing time.

STANDARDIZATION OF RECIPES

The development of a set of recipes tailored to meet the needs of the facility will allow for better control of production costs and quality of products. Such a set of recipes is known as standardized recipes. The recipes can be standardized to the amounts actually required. Staff will take more interest in improving recipes and preparation procedures if their ideas can be incorporated into the finalized recipes. Details on the recipe card should indicate:

Date

Name & Number of Recipe

Ingredients - weight and/or measure

Procedures or Method

Pans - kind and size, and amount of product per pan

Yield - number of portions

Portion Size

Cost per Portion - reviewed at least annually

It is a good idea to have recipes numbered in a system so that new recipes can be easily added. It is easier to find a particular recipe if recipes are arranged in groups (i.e. salads, desserts, etc.) and even alphabetized by recipe name. A good supervisor or cook is always alert to new recipe ideas that fit within the skill of the employees, equipment, and the budget of the health care facility.

A master set of recipes should be stored in a notebook or recipe box in the Director's desk to avoid loss. Then working copies of recipes can be bound by a loose leaf ring and stored in the work areas. It is especially convenient if these are plastic coated cards for easy cleaning. A suggested format for a standardized recipe is shown. (See Samples, pages 69 and 70)

Useful Recipe Abbreviations

A.P.	as purchased	tsp	teaspoon	
E.P.	edible portion	T	tablespoon	
L	litre	gal	gallon	
mL	millilitre	oz	ounce	c cup

g	gram	qt	quart
°C	degree Celsius	°F	degree Fahrenheit
kg	kilogram	lb	pound

Portion Control

The person in charge should determine specific and consistent sizes of portions or servings. Then these sizes should be posted and well communicated to the employees serving the food. Portion control can be made easier by having scoops or ladles of the desired volume and by using serving dishes of the appropriate size.

Serving sizes of meat and fish should be checked frequently by weighing on a scale to see that they are consistent. Serving sizes of desserts can be controlled by dish size, ladle or scoop. Volume of beverage can be controlled by using the appropriate size of cup, glass or other container.

(See Suggested Portion Sizes, page 68)

SUGGESTED PORTION SIZES

Scoop Number		Rounded metric yield mL
No. 6	Main Dish Salads	180
No. 8	Meat Patties and Casseroles	120
No. 10	Meat Patties, Cereals, Croquettes, Vegetables	100
No. 12	Entrées, Salads, Croquettes, Vegetables	80
No. 16	Entrées, Muffins, Desserts	60
No. 20	Sandwich fillings, Salads, Muffins, Desserts	45
No. 24	Sandwich filling	40
No. 30	Large Drop Cookies	30
No. 40	Medium Drop Cookies	15
No. 70	Small Drop Cookies	10
Ladle Size		
8 oz.	Soups, Chilies, Stews	240
6 oz.	Soups, Stews, Baked Dishes, Chili, Creamed dishes, Vegetables	180
4 oz.	Creamed dishes and Vegetables	120
2 oz.	Gravy, Sauces	60
1 oz.	Sauces, Relishes	30

SAMPLE

SAMPLE RECIPE FORMAT

DESSERTS

RECIPE NAME: Apricot Jelly

RECIPE NO:

Serving size 150 g	Cooking time
Size of cooking pan	Cooking temperature
Serving utensil	Serving temperature
Weight per pan	Raw food cost per serving
Servings per pan	

INGREDIENTS	YIELD-SERVINGS 10	20	50	PROCEDURE
Dried Apricots Water	260 g 900 g	520 g 1.8 kg	1.3 kg 4.5 kg	Soak apricots until tender. Cook Strain off the juice. Add water to obtain for 10 - 680 g. juice 20 - 1.2 kg juice 50 - 3.4 kg juice
Gelatin Cold Water	25 g 112 g	50 g 225 g	120 g 560 g	Sprinkle gelatin on cold water
Sugar Salt	260 g 3 g	520 g 6 g	1.3 kg 15 g	Add together with gelatin in cold water to hot apricot juice. Heat until all dissolved. Cool slightly.
Lemon Juice	115 g	230 g	570 g	Add to hot mixture and pour jelly into moistened pans to set. When partially set, add apricots, whole or diced. Chill until firm. Serve with custard sauce cream.

SAMPLE

AUTHOR:

SOURCE: 100 to Dinner

SAMPLE RECIPE FORMAT

DESSERTS

RECIPE NAME:

RECIPE NO:

Serving size _____g	Cooking time _____
Size of cooking pan _____	Cooking temperature _____
Serving utensil _____	Serving temperature _____
Weight per pan _____	Raw food cost per serving _____
Servings per pan _____	

INGREDIENTS	YIELD-SERVINGS	PROCEDURE

SAMPLE

AUTHOR:

SOURCE: _____

SANITATION AND SAFETY OF FOODS

The primary goal of a food service sanitation program is to protect the customer from food-borne illness. All precautions should be taken to make sure that food is free from contamination and spoilage and is, therefore, safe to eat. Close supervision is necessary over food, people and facilities.

Food

It is essential that wholesome and safe food products are purchased from reliable sources. Food products should be inspected on arrival in the facility to check that food is of quality and quantity ordered, and to ensure that flies and other pests are not brought into the facility with food. Food should be appropriately stored. (See Food Storage, page 38). Thermometers should be supplied in all refrigerators and freezers; checking of temperatures should take place daily.

Food is the natural habitat of many micro-organisms. Most of these grow best in the temperature zone of 4°C - 50°C (40°F - 120°F). Hence, food should be held in this range for as short a time as possible and never more than two hours. (See Food Preparation, page 55)

People

Only people in good health make suitable food handlers. Physical examination and laboratory tests upon employment, and at specific intervals for all food service personnel, are desirable practices. Employees must be trained in clean personal and safe food practices, with emphasis on frequent hand-washing. Dress regulations that follow high standards of cleanliness should be made known and followed.

Employees who prepare and serve food should wear clean, washable uniforms. These uniforms should be worn only while working in the kitchen and not while going to and from work or for street wear. Hairnets or caps should restrain the hair of all people who work in food preparation and service areas. Training in the safe handling, storing and service of food is essential. Awareness of the ways in which food can become contaminated, and food-borne micro-organisms can multiply, can increase the appreciation of sanitary practices.

The following practices must not be permitted:

- commencing work without washing the hands;
- touching face, hair, nose etc., without rewashing the hands;
- coughing or sneezing unguardedly in a food preparation area;
- picking up bread, rolls, butter pats or ice with bare hands;
- touching the food contact surfaces of tableware;
- stacking plates of food in order to carry more at one time;
- tasting food with a finger or using the same spoon for tasting repeatedly.

In-service education programs for employees can be a useful and effective way to train employees in sanitary methods of working with food. There are some excellent films available in making sanitation clear to food service employees. Check with the provincial hospital association, government agencies, suppliers and professional associations such as dietetics, home economics, and food service supervisors, for help in obtaining films and other resources.

Safe food-handling practices require constant supervision. A comprehensive sanitation checklist used at random times is an effective way to check on sanitation. (See Sample Check List, page 75). With sanitation, as with many other topics, example is the best teacher.

Equipment

Check to see that the construction of walls, floors and ceilings allow for thorough and easy cleaning and maintenance. Develop cleaning schedules for all pieces of food preparation equipment. Assign responsibility for cleaning to specific employees. Try to have equipment installed so that cleaning can be performed easily. Train employees to clean their work areas when they are finished.

Whether dish or pot washing is done manually or by machine, it is essential that utensils should be washed, rinsed and sanitized. Sanitizing is the final process which kills any harmful bacteria left on dishes which have just

been washed. Sanitizing can be done either by high temperature alone, or by a chemical agent, such as chlorine, iodine or a quaternary ammonium compound. If using a chemical compound for sanitizing, use the amount recommended by the supplier.

Some practices to keep in mind are:

- presoak cutlery in containers before washing manually or processing in dishwashing machine;
- air dry dishes, glasses, cutlery, pots, pans and utensils;
- move clean dishes on carts;
- handle clean utensils as little as possible.

Proper and prompt disposal of garbage is essential to avoid contamination and to discourage pests. For good garbage removal:

- use plastic garbage bags for lining garbage cans and replace frequently;
- store filled garbage containers in a cool area near the exit;
- wash and sanitize garbage cans frequently.

Be sure the facility follows the Sanitation Code for Canada's Food Service Industry, prepared by the Canadian Restaurant and Food Services Association.

Boiler Plant Steam

Due to potential health hazards caused by the presence of amines* in steam from the boiler plant, it may be advisable to use self-generating steam equipment where steam comes in direct contact with food, dishes and other equipment.

Reference

*"Volatile Amines in Hospital Steam System" 1970, Amsco Canada, Division of Ingram and Bell Limited, 20 Bond Avenue, Don Mills, Ontario, M3B 1L9.

CHECK LIST - SANITATION AND SAFETY

A check list as found on pages 75 to 78 inclusive is a management tool and a guide for the inspection of sanitary procedures either in the department as a whole or in any areas within the department. Appropriate items may be added or deleted as necessary.

Analysis of the information and implementation of corrective actions are essential. The check list should be used on a continuing basis, at random times, and at least on a monthly interval.

Provincial or local legislation will determine whether microbiological testing on prepared food, dishes, equipment, etc. should be carried out routinely.

The Director of Dietetics should promote a safety measures program for the education and protection of employees.

SAMPLE CHECK LIST - SANITATION AND SAFETY

Check (x) according to following code:

S. = Satisfactory
I.N. = Improvement needed
P. = Poor
I.C. = Item Corrected
N.A. = Not Applicable

AREA DATE TIME

S	I.N.	P	I.C.	N.A.	ITEM	REMARKS
					1. Prepared foods used within 2 hours of preparation or immediately refrigerated. 2. Regrigerators washed and sanitized properly, items off the floor. Clean floor Clean shelving Clean fans and grills Organized storage space Overall tidiness 3. Temperature Refrigerator _____ _____ _____ _____ Freezer _____ _____ _____ _____ 4. Equipment and machines clean and operating properly. (list equipment on separate page).	

SAMPLE

S	I.N.	P	I.C.	N.A.	ITEM	REMARKS
					5. Food cooked to proper internal temperature. Record temperature: _____ _____ _____ _____	
					6. Food maintained at proper temperature. Record temperature: Serving point / Bed side _____ _____ _____ _____ _____ _____ _____ _____	
					7. Food carts washed and sanitized properly.	
					8. Food protected from contamination: Preparation _____ Handling _____ Storage _____ Transporation _____	
					9. Separate equipment used to cut raw meat, fish, and poultry.	
					10. Hands properly washed and cleaned after use of toilet and before preparation of food.	

SAMPLE

S	I.N.	P	I.C.	N.A.	ITEM	REMARKS
					11. Soap, paper towels and waste receptacles available at the hand washing sinks. 12. Lavatory facilities clean and in good repair and free from odors. 13. Clean work garments worn by employees at all times; proper hair restraints used. 14. Cutlery, dishes, glasses and water carafes clean and sanitized, no chipped or cracked ware in use. 15. Pots, pans and utensils, knives, cutting boards clean and sanitized. 16. Dishwashing wash and rinse temperatures correct: Record wash temperature _____ Record rinse temperature _____ 17. Potwashing, wash and rinse temperatures correct: Record wash temperature _____ Record rinse temperature _____ 18. Ranges and grills clean. 19. Ventilators, canopies, ovens, kettles and steamers clean. 20. Food contact surfaces of equipment clean to touch and sanitized.	

SAMPLES

S	I.N.	P	I.C.	N.A.	ITEM	REMARKS
					21. Non-food contact surfaces of equipment clean to touch and sanitized.	
					22. Tables and counters clean to touch and sanitized.	
					23. Food service utensils and supplies properly stored, dispensed, and handled.	
					24. Containers of food stored off floor and clean surfaces.	
					25. Poisonous and toxic materials properly identified, stored and used.	
					26. Garbage stored in containers with liners and lids, containers adequate in number.	
					27. Garbage storage areas clean.	
					28. Absence of rodents, roaches and insects.	
					29. Floors clean.	
					30. Walls, windows, ceiling and attached equipment clean.	
					31. Light fixtures clean.	
					32. Areas clean, litter-free.	
					33. Clean drawers, cupboards and storage shelves.	
					34. Hospital prepared formulas for infants checked weekly for microbiological culture.	

SIGNATURE OF DIETETIC TECHNICIAN/FOODSERVICE SUPERVISOR

SAMPLE

DISH AND POT WASHING

Dishes, pots and utensils must be thoroughly cleaned and sanitized after each use for the protection of those being served.

Equipment

The equipment required to clean and sanitize dishes and utensils consists of:

(a) Manual Equipment:

i) three sinks of non-corrosive metal, of sufficient size to ensure thorough cleaning and sanitizing;

ii) a thermometer attached to the sanitizing sink to indicate the proper temperature for sanitizing; or where chemical sanitizing is employed, suitable testing equipment to ensure that the correct amount of chemical is in solution;

OR

(b) Mechanical Equipment:

i) a commercial heavy duty (not household) type mechanical dishwasher of appropriate design for the volume of dishes and the largest size of trays to be washed;

ii) a hot water booster to raise the temperature of the rinse water.

Space

The dishwashing area should be clean, light and well ventilated. Floors and walls must be of tight, smooth, non-absorbant materials. The equipment should be placed in such a way as to permit ease in cleaning and maintenance, as well as to allow room for scraping, stacking, air drying and transporting of carts and racks.

Scraping and Pre-rinsing

Dishes should be scraped to remove large food particles as soon as possible after use. Soaking articles bearing traces of egg or dried-on foods in a sink will ensure thorough cleansing. For less stubborn soil, a hose with a spray attachment will remove most of the residue.

It is important to remove as much food residue as possible before washing to make economic use of detergent and water.

Manual Dishwashing

1) Three-Compartment Sink

A three-compartment sink with adequate drain boards is required for manual washing of dishes and utensils. One compartment is used for washing, one for rinsing with clean water, and one for sanitizing. The water temperature should be at a minimum of 43°C (110°F).

2) Equipment and Materials Required

- dish scrapers
- pot scraper - preferably nylon or plastic
- detergent and sanitizing compound, to be stored in separate containers with covers
- individual measures for detergent and sanitizing agent
- dish mops
- pot brushes
- racks designed to hold dishes and silver for manual dishwashing
- garbage cans with lids
- floor mops, pails, mop wringer
- storage cupboard for cleaning supplies
- thermometer for testing the water temperature
- container for pre-soaking

3) Manual Dishwashing Procedure

(a) Scrape dishes, rinse, and stack on table preparatory to washing. Soak dishes containing egg or dried food residue. Put silver in container of water to soak.

(b) Use the correct amount of detergent recommended by the manufacturer for the degree of water hardness. Wash dishes in the following order:

- glassware
- cutlery, beverage pots, plate covers
- cups, saucers
- plates, bowls
- trays

Change water frequently.

(c) Place in racks and immerse in clear water to remove detergent. Change rinse water when it cools or is no longer clear.

(d) Sanitize by submerging the rack either in a sanitizing solution or in clear water at 77°C (170°F) for two minutes.

If using a sanitizing solution, test water frequently to make sure that the solution is in the correct concentration.

(e) Transfer racks to drain board and allow dishes to air dry. Boiling water poured over dishes and cutlery speeds up air drying.

(f) Stack and store.

(g) Clean equipment and work area by washing with hot soapy water and rinsing well. Polish all surfaces with a clean, dry cloth. Mop floor. Hang mops, brushes and cloths to dry in a light, airy place.

Machine Dishwashing

1) Dishwashing Machine

A dishwashing machine requires a hot water booster heater to raise the temperature of the rinse water to 82°C (180°F). Live, direct steam should not be used to raise the rinse water temperature.

Other equipment includes a sink and an exhaust hood with an extractor fan to remove steam and reduce humidity. Under-counter models do not require the exhaust system.

2) Equipment and Materials Required

- dish scraper
- hose with spray attachment for pre-rinsing
- soak sink (may be mobile)
- an assortment of dish and cutlery racks appropriate for the size of the machine, in sufficient numbers to match the volume of dishes
- detergent appropriate for the machine and water hardness, stored in a covered container
- measuring cup for detergent or automatic dispenser
- garbage cans with lids
- floor mops, pails, mop wringer

- storage cupboard for cleaning supplies
- storage equipment for dishes, cups, glasses, trays and silver

3) Mechanical Dishwashing Procedure

It is important not to operate the dishwashing machine until there are enough dishes to make operation of the machine economical.

(a) Close drain of machine; fill with water; add detergent if not dispensed automatically.

(b) Scrape, rinse, stack and rack dishes; place silver in soak sink.

In racking cutlery, loosely place a mixture of knives, forks and spoons handles down in the container. After sorting, cutlery should be stored with handles up.

Glasses, cups and bowls should be racked upside down, so that water and detergent coming from above and below can reach all surfaces without being collected in the dishes.

Dishes of the same size should be racked together.

(c) Put racks through machine, making sure that each rack is fully loaded, but without the items touching each other.

Check wash and rinse temperatures frequently. Wash water should be 60°C - 71°C (140°F - 160°F) and rinse water 82°C - 88°C (180°F - 190°F).

(d) Remove racks from machine and allow dishes to air dry before removing, stacking and sorting.

Cups with a hollow in the base should be tipped to remove any water held there.

In some cases, cups and glasses may be stored in their racks or on trays at point of service. This reduces handling.

It is common practice to wash trays after all other items have been processed. Because trays take much longer to dry than dishes, they can be left to dry if the clean dish space is free of other racks.

Drain machine; empty strainer; flush inside with hot water.

(e) Clean work area and equipment using hot, soapy water and rinse with clear water. Polish with dry cloths.

Mop floor. Hang clean mop to dry in airy place.

Pot Washing

If a dishwashing machine is available, some pots, pans and utensils can be cleaned and sanitized in the machine.

Otherwise, pots and pans must be cleaned in a three-compartment sink after scraping and soaking. As many cooked-on food particles as possible should be scraped off before washing. Similar to manual dishwashing, the three sinks are used for washing, rinsing and sanitizing. An automatic dispenser for detergent, which attaches to the taps of the wash sink, is available from the detergent suppliers. The water temperature should be at a minimum of 43°C (110°F).

1) Equipment and Materials Required

- pot scrapers - preferably nylon or plastic
- detergent and sanitizing compound recommended by the manufacturer for pot washing, to be stored in separate containers with covers
- pot brushes
- garbage cans with lids
- floor mops, pails, mop wringer
- storage cupboard for cleaning supplies
- pot rack with slotted or wire shelves to permit air circulation for drying
- thermometer for testing the temperature of the water.

2) Pot Washing Procedure

(a) Soak, scrape and rinse; place on drain board next to wash sink.

(b) Scour pots in hot, soapy water. Change wash water frequently.

(c) Rinse in clear water. Change rinse water frequently.

(d) Sanitize in third sink, either in a sanitizing solution or in clear water at 77°C (170°F) for two minutes.

If using a sanitizing solution, test water frequently to make sure that the solution is in the right concentration.

(e) Place on drain board. When dry, transfer to pot rack.

(f) Drain sinks, scrub with hot, soapy water, then rinse and polish dry with soft, clean cloth.

Mop surrounding floor area. Hang clean mops, brushes and cloths to dry in a light, airy place.

MAINTENANCE

Food service equipment is costly and to operate efficiently should be well maintained. There should be good rapport between the Department of Dietetics and the Physical Plant Department (Maintenance). The Director of the Physical Plant Department can be of great value in teaching the employees of the Department of Dietetics the proper care of various equipment.

Equipment will function properly if:

- wear and tear are reported
- equipment is kept clean
- employee uses it correctly
- employee is trained in correct procedures for use.

A record should be maintained for each piece of major equipment showing the original cost, installation cost, and subsequent costs. Repair, maintenance and other costs can indicate when to replace the equipment. The record, a card file or notebook, is usually kept in the Physical Plant Department. (See Sample Equipment Record, page 86)

Selection of Equipment

Equipment selection is not only important from the standpoint of cost, but is also of vital importance in achieving food quality and in obtaining an efficient, smooth operation.

Prior to buying any piece of equipment, some questions should be answered:

- Will the cost of the equipment be off-set by possible savings in labor costs?
- Is it essential?
- What are the initial and operating costs?
- Is it easy to maintain, service and repair?
- Is it safe and easy to clean?
- What size is required?

The size of equipment should be related to the amounts to be produced. Equipment that is too large is inefficient to operate and keep clean.

All equipment should be of the heavy duty, commercial type. Household or light duty equipment does not perform adequately.

SAMPLE ONLY

EQUIPMENT RECORD (front of card)

Item

Inventory #

Trade Name

Manufacturer

Model #

Serial #

Capacity

Purchase Date

Purchased from:

Operation: Electricity___for___

New Used Cost $

Steam___Hand___

Guarantee period

Free Service period

SAMPLE

(back of card)

Cost of repair, maintenance, servicing, parts

Date	Description of work	Cost

SAFETY IN FOOD SERVICE

The prevention of accidents is the responsibility of the Director of the Department and is best accomplished through good in-service education programs and through informal training of employees. An employee who is working safely knows what he is to do and has been well trained in how to do it. He has a knowledge of and respect for the tools and equipment with which he works. Most accidents occur because people are not well informed or well trained. Good supervision is essential to the maintenance of good safety procedures.

These guidelines will aid in providing safe working conditions and in encouraging safe procedures:

1) Wear no jewelry or loose clothing that can catch in any equipment.

2) Wear closed, safe shoes with low, comfortable heels.

3) Pay careful attention when using equipment. Always use safety guards. Follow directions carefully.

4) Use only sharp knives and store correctly immediately after use.

5) Do not leave knives or other sharp equipment unseen or submerged in water.

6) Immediately clean thoroughly any food or liquid spilled on floor so that no one will slip.

7) Be aware of correct lifting procedures, and lift heavy articles only when necessary; use carts whenever possible for transporting dishes, food items, etc.

8) Be alert to hot surfaces.

9) Use protective hand covering when handling hot food and dishes.

10) Be alert to traffic when pushing carts, trucks or dollies.

Accidents should be reported immediately to the Director of Dietetics. The cause of every accident should be determined so that the accident will not happen again.

ENERGY CONSERVATION

Energy conservation is a topic of considerable concern. In Canada immediate steps must be taken to ensure a balance between energy supply and demand. Alarm has been expressed about the volume of usage, the amount of waste and the increasing cost of energy.

The staff of the Department of Dietetics has a part to play in saving energy. The importance of proper maintenance in reducing energy consumption cannot be overemphasized.

In order to expedite energy conservation measures, this topic should be included as part of the in-service education program.

The following suggestions will help to develop other ideas on energy conservation:

- Post signs and posters to remind staff about energy conservation.
- Set up a program to shut off supply or exhaust fans in areas that become unoccupied during a 24-hour period, i.e. the kitchen after hours, taking into consideration minimum ventilation and clean environment requirements.
- Reduce energy consumed by refrigeration facilities by ensuring refrigerator doors are not left ajar for periods longer than is absolutely essential. Air leaks around closed refrigerator doors are also sources of power waste.
- Ensure that cooking ovens (either gas or electric) are used effectively by filling the oven to capacity.
- Open oven doors only to load and unload ovens and this should be done as quickly as possible.
- Turn off energy-using equipment when not in use.
- Turn off lights when not in use and rely on natural light when this is possible.
- Eliminate all decorative lighting.
- Turn on equipment only as required - a preheat time of 10-15 minutes is usually sufficient.

- Operate the dishwashing machine only when there is sufficient volume to warrant it.

- Conserve the use of hot water by eliminating waste of water. Repair any leaking faucets.

- Keep all cooking surfaces clean.

- Have all equipment checked routinely. Preventive maintenance is necessary on all equipment.

- Turn down heat as soon as food begins to boil and maintain liquids at a simmer.

- Cover pots, pans, kettles with lids or covers.

- Lower room temperature when room is not in use.

- Check all thermostats regularly.

- Schedule food production so that the use of warmers is kept to a minimum.

- Check for adequate insulation of pipes, refrigeration and freezing equipment.

- Consider the use of automatic timers in all areas where applicable.

- Check doors, windows for tightness.

REFERENCES

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5. Food Grading in Canada (1977), Publication #1283
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   Fowler, S.F., West, B.B. and Shugart, G.S.
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11. Guidelines for the Operation of the Department of Dietetics in Larger Health Care Facilities
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15. Planning Menus for Small Institutions (1979)
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